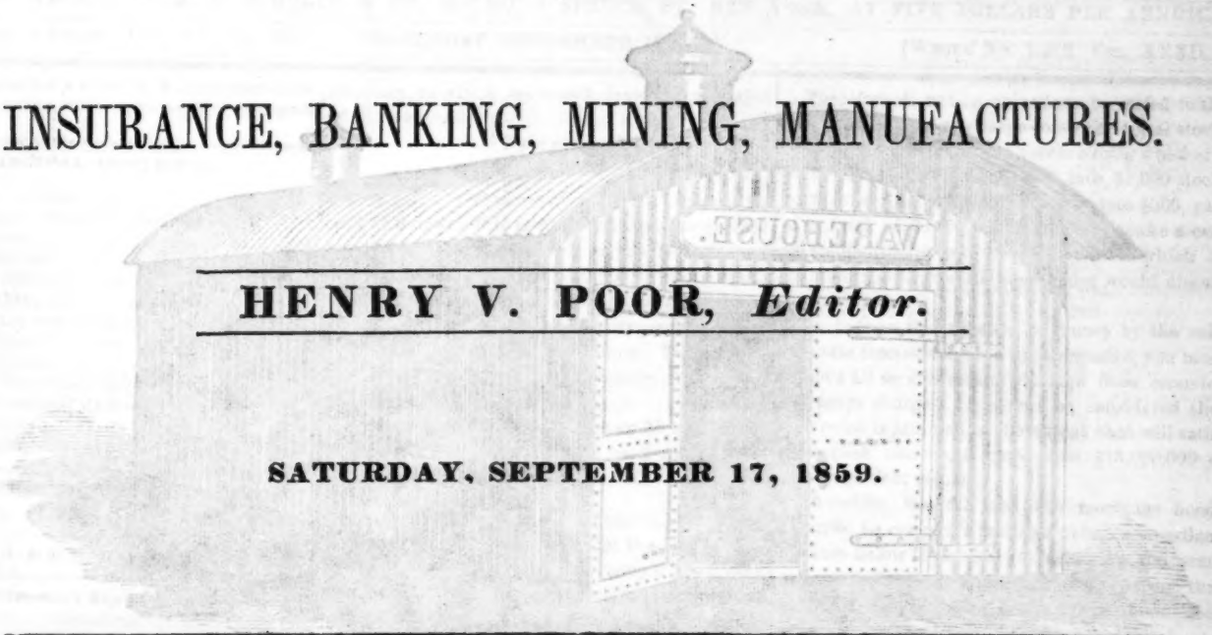
AMERICAN

RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, FINANCE,

INSURANCE, BANKING, MINING, MANUFACTURES.



HENRY V. POOR, *Editor.*

SATURDAY, SEPTEMBER 17, 1859.

Second Quarto Series, Vol. XV., No. 38.---Whole No. 1,222, Vol. XXXII.

ESTABLISHED IN 1831.

NEW-YORK:

PUBLISHED WEEKLY, BY

JOHN H. SCHULTZ & CO.

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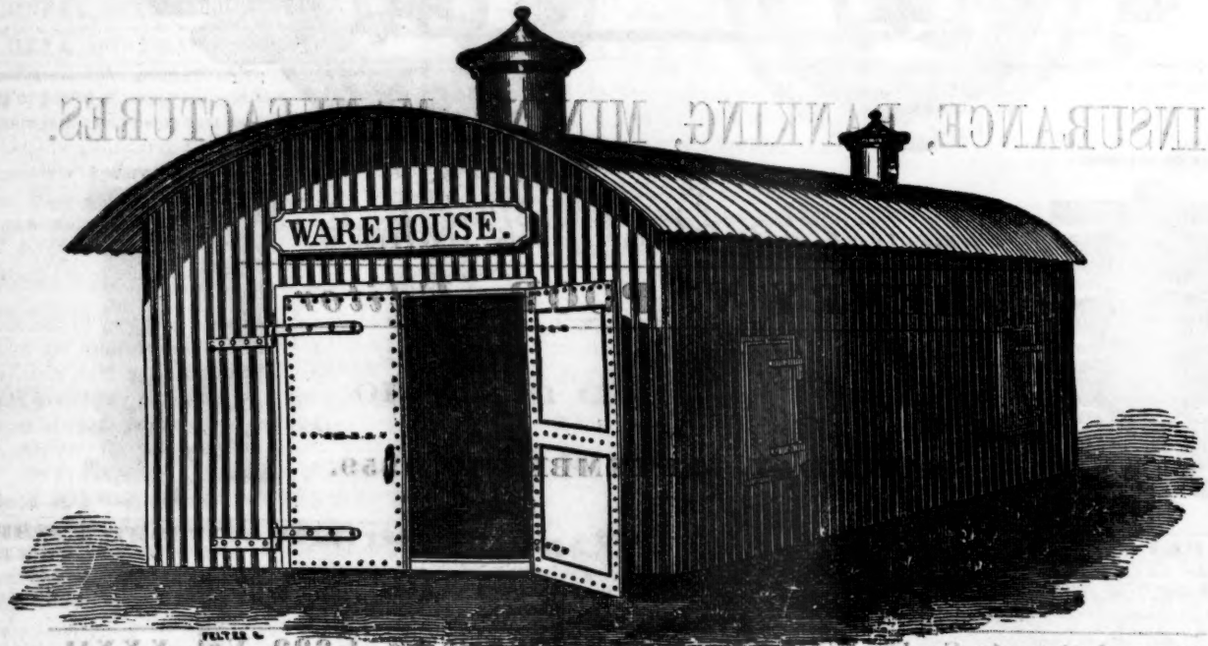

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☞ MESSRS. ALGAR & STREET, No. 11 Clements Lane, Lombard Street, LONDON, are the authorised European Agents for the *Journal.*

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American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO. No. 9 SPRUCE ST.

New York, Saturday, September 17, 1859.

New York and Erie Railroad.

3 Threadneedle Street, E. C.
LONDON, 25th August. 1859.

To the Editor of the AM. RAILROAD JOURNAL.

SIR:—We observe in some of the American papers, suggestions for re-organizing the New York and Erie Company. Most of these suggestions are based upon the idea of cutting down the nominal capital represented by the unsecured bonds and shares.

We wish to protest against any plan of this kind, as regards the unmortgaged debt. It would be very unpopular in England. John Bull would much prefer 5 per cent. on his £100, than have the nominal amount reduced to £50, although he might receive 10 per cent. on it. Moreover, there is no sufficient reason for such a step, as the capital has been raised clear of any heavy discount, and *bona fide* expended on the line, in addition to $3,000,000 given by the State.

We quite agree with the suggestion for reducing the mortgage debt to $13,000,000, and that the balance of the capital should be represented in shares, but if bonds are to be turned into shares, it should be at their full par value. We beg to hand you our Premises and Arguments, and a plan based upon them, for the re-organization of the company, to which we would draw the attention of all interested.

Your obt. sert.
HESELTINE & POWELL.

P. S.—In the *Tribune* of the 11th August, we read as follows: "It is conceded that the general account should be reduced to $25,000,000, and many parties consider $20,000,000 as much as the road can pay interest and dividends upon. Mr. Gelpcke states that the working expenses are now at the rate of $3,000,000 per annum. The average receipts for 5 years, ending December, 1858, were $5,618,432."

7 per cent. on $20,000,000 is only $1,400,000; it is, therefore, absurd to say the road can only be made to pay interest on $20,000,000.

PREMISES AND ARGUMENTS.

The revenue is so abundant for the 1st, 2d and 3d mortgage bondholders, that many of them may be expected to insist on their rights—and, if not paid early, to mar the whole plan of a *friendly* foreclosure under 4th and 5th, by pressing a hostile foreclosure under 1st, 2d, or 3d, with a view of enforcing *par* in cash. Therefore, means ought to be found to pay them early all arrears.

The "floating" creditors might force sacrifice of 4th mortgage bonds, to the serious prejudice of the other 4th and of all subordinate bondholders—or hey might procure embarrassing judgments. Therefore, they ought to be got rid of, and the bonds redeemed.

Without *some money* being raised, there appears no little peril that before the surplus revenue over and above accruing interest shall have accumulated enough to pay off all arrears and floating debts, some one or more early bondholders or creditors will have grown impatient and hostile, and mar all the friendly plans of re-organization.

Assuming money to be necessary, the terms of re-organization must be such as to raise it by compulsion, *i. e.*, raise it from certain classes as a condition of being admitted, otherwise the "willing horses" are overburdened to save drones.

It is very desirable to avoid even the appearance of using the sponge on any part of the debt, seeing how large an European interest has to be consulted, and how advantageous it will be to avoid the imputation of dishonor or repudiation.

Therefore do not let objections be raised to the mere appearance of a large common capital stock. It can make no difference *intrinsically* whether a bondholder convert his $1,000 into $1,000 stock, part of a total of $10,000,000, or into $500, part of a total of $5,000,000, but it may make a considerable difference in the feelings with which an irritated and aggrieved bondholder would discuss the proposal.

To induce the advance of money by the subordinate interests invited to re-organize, you must remove all *serious risk* of damage from *excessive mortgage* charges. It cannot be considered that this point is attained to the extent that will satisfy English notions, if more than $13,000,000 of mortgage debt remain.

Therefore, the 4th and 5th mortgage bonds ought to be converted into something less perilous to those below them, but yet retaining the same order of priority, or nearly so, with provision that no new capital can take priority over them. Let them be converted into preference capital—the 5th paying a contribution to the *cash fund*, but the 4th being let off from all new contributions.

So, then, the 4th will retain the same relative order or priority as if they should foreclose entirely on their own account; but they will not have the monopoly of the surplus after the first three mortgages, and, on the other hand, they will as a compensation be relieved from providing the cash which they must find if they foreclose on their own account.

The unsecured bondholders and unsecured creditors should turn their claims, both principal and arrears, into a new capital stock at *par*, and the shareholders should turn their shares with the same stock, but valuing them at a discount of say 70 per cent. or $30 per share.

The contributions to the cash fund to become preferred stock. Assuming that $700,000 is wanted to pay off arrears of interest on 1st, 2nd, and 3rd mortgages, and the floating debt, a contribution of about 9 or 10 per cent. on the 5th mortgage bonds, and on the suggested capital stock of, say, $10,000,000 (see below) would be ample.

The preferred stock dividends to be accumulative, in case of any temporary omission of dividend.

The result would be—

	Requir'g per ct.		Interest.
Mortgages	$18,000,000	7	$910,000
Preferred stock.			
From $3,600,000 } 4th Int. 200,000 }			
1,000,000 } 5th Int. 70,000 } Contri-but'ns, 1,000,000 }	5,870,000	7	411,900
Common stock.			
Unsecured bonds and arrears	$8,000,000		
* 30 per ct. on $11,000,000			
Shares	3,300,000		
	$11,300,000		
Recusants	1,300,000		
	10,000,000	7	700,000
			$2,020,000
Being 40 per cent. net receipts on a gross take of			$5,050,000
Average for 5 years ending 30th Sept., 1858, having been			$5,618,432

* This would require a contribution of $3 from each share.

On the Burning of Welsh Steam Coal in Locomotive Engines.

At a meeting of the British Institution of Mechanical Engineers, the following paper, by Mr. Joseph Tomlinson, of Cardiff, was read: "*On the Burning of Welsh Steam Coal in Locomotive Engines.*"

The use of coal in locomotive engines having become almost the rule, the writer offers the following results of a series of trials he has made with the steam coals of South Wales in locomotive engines upon the Taff Vale Railway, in comparison with the best description of coke to be had in the same district; as there has hitherto been a difficulty in the use of that description of coal for such a purpose, almost amounting to prohibition, from the fact that, in all previous trials, a failure has resulted from the burning of the fire bars. This failure of the Welsh steam coal in locomotive engines has been hitherto attributed to the fire-bars becoming clinkered over; but the results of the trials described in the following paper appear to show that the failure has arisen from an entirely different cause, and one that can be completely obviated.

The writer was originally driven to the use of coal alone for carrying on the traffic of the Taff Vale Railway, in January last, in consequence of the continued strike of the colliers in the Rhonda Valley, where the coking coal is obtained. Previous to that time little or no coal had been used in the locomotives, owing to the good quality and low price of the coke, and from the idea that coal could not economically compete with coke for the heavy work of this line, and also from the known difficulties to be overcome in its employment. The transition from coke to coal being sudden and unprepared for, it became necessary to watch the matter closely, so as to determine which of the various descriptions of coal would answer the purpose best, and to arrange its treatment; more especially, as at the outset, from the various qualities of coal that had to be used, the fire-bars were continually being burnt out, and seldom could be made to last two days without passing through the hands of a smith, to be separated and straigthened; even then several bars a day were totally destroyed in each engine—some engines having had two entire new sets a day, to run 100 miles. After careful consideration of the subject, it was decided to use only one description of coal; the preference was then given to the steam coal over the bituminous, as being more pure in its composition, and smokeless; and after attentive observations and trials, the Aberdare four feet vein coal was chosen. With this coal it was found that the least damage was done to the fire-bars, and the best result obtained by working the engine with a very thin fire, say not exceeding nine inches with a moderate load, and slightly thicker as the load increased, not, however, exceeding fifteen inches in any case. In working with a light train, or down hill with a loaded train, it was found advantageous to keep even a more shallow fire than nine inches; for the blast being very light, (as little or no attraction is required down hill on this railway,) the supply of steam could not be kept up unless the air were admitted with little difficulty; it is, however, necessary to be prepared in case of being stopped, and therefore a bright fire was a desideratum, which could not be obtained unless it were kept thin.

The injury to the fire-bars was, however, still a great item, notwithstanding all the care that could be bestowed on them; for it is difficult to get a number of men to attend implicitly to rules which give them more trouble than they have previously been accustomed to. The writer was, therefore, induced to try an experiment, by covering up the entire surface of the bars with small pieces of firebrick, not exceeding three inches cube, and putting fire on them, so as to prevent the direct action of the fire on the iron of the bars; and it was found that, from the clean nature of the coal, no bad result took place in the generation of steam, while the bars received little or no injury. This plan has consequently been generally adopted, but with the partial substitution of clinker from stationary engines, instead of firebrick alone. It has completely obviated the difficulty of the bars being burnt; and a set of bars will now last on an average four months, running about 100 miles a day. It is also attended with a beneficial result; for the small coal, instead of passing directly into the ashpan unconsumed, adheres partially to the red hot brick and clinker, and is consumed; and notwithstanding that the Welsh steam coal falls readily to small, and has little, if any, binding property, the engines can run 100 miles without cleaning out the ashpan. Another description of coal, containing a larger per centage of ash, has also been tried for getting up steam and making the first fire to start with, which, clinkering slightly on the bars, most effectually prevented them from burning; the use of this coal was, however, limited to 5 cwt. per day for each engine.

To place the engine more out of the control of the men, the plan was adopted, which has been in use on other engines, of perforating the shield of the fire door, and drilling five or six 2 inch holes in the door itself, to admit a little air above the fire; this was found useful, not only in assisting combustion, but also in preventing the blast from lifting the small particles of coal, and thereby choking the tubes.

Having so far succeeded in efficiently working the traffic entirely with coal, and finding the engines were working the trains with a smaller weight of fuel than they had previously done, the writer was disinclined to return to coke without good reason after the experience he had had. A series of experiments was, therefore, made to test the commercial value of each description of fuel. The particulars of these experiments were given to the meeting in seven tables; of which, tables I. and II. show the results of experiments made with an engine working the regular mineral trains, with Aberdare four feet coal and Rhondda Valley best coke; and tables III. and IV. give the experiments with the same coal and coke with a special train of 35 loaded coal wagons, weighing 269 tons, run at the regular speed of the ordinary trains of about 11½ miles per hour. Table V. gives experiments with various fuels, with a special train of 40 loaded coal wagons, weighing 314 tons, run at a speed of 20 miles per hour up the hill, and 12 miles down, (12 miles per hour being the limit down hill with loaded trains. Tables VI. and VII. show the results of experiments with Bastard steam coal and Aberdare nine feet coal; the former of these has a larger per centage of ash, and more bituminous property, the only objection to its use being the smoke; it does not burn the bars, and is fully as economical as the pure steam coal.

The whole series of experiments were made with the same engine, and by the same engine man. The engine is of the following dimensions: Cylinders, 16 inches diameter and 24 inches stroke; six wheels, coupled, 4 feet 6 inches diameter; fire box, 3 feet 6 inches square, by 4 feet 10 inches high; 156 tubes, 13 feet 3 inches long, by 2 inches diameter, and No. 11 to No. 14, wire gauge thickness; safety valves loaded to a pressure of 110 lbs. per square inch.

The following table gives the general results of the whole of the experiments, showing the quantity of fuel consumed per ton per mile, the quantity of water evaporated per lb. of fuel, and the average speed of the train during running:

Table.	Fuel consumed per ton per mile. lb.	Water evaporated per lb. of fuel. lbs.	Speed in running miles pr. hr. Miles.
Coal–Aberdare Four Feet Vein	I. .127	7.63	11.5
Coke–Rhondda Valley Best Coke	II. .172	7.62	11.5
Coal–Aberdare Four Feet Vein	III. .130	8.37	11.5
Coke–Rhondda Valley Best Coke	IV. .124	8.34	11.3
Coke–Rhondda Valley Best Coke	V. .136	7.54	16.8
Coal–Aberdare Four Feet Vein, lump	V. .133	7.73	16.5
Coal–Aberdare half lump & half small.	V. .153	7.71	14.8
Coal–Rhondda Valley Bastard Steam Coal	VI. .110	8.63	11.5
Coal–Aberdare Nine Feet Vein	VII. .112	8.15	11.5

The results in the consumption of fuel showing, in all cases, slightly in favor of the coal, they may fairly be considered equal; and as the abuse of the engine, when burning coal is more easily detected than when using coke, this forms a further advantage in favor of coal. The preference may also be given to coal over coke for the freedom in generating steam, which will allow the blast pipe to be of larger dimensions than when burning coke. This has been clearly shown, as the engines are now maintaining steam at 100 and 110 lbs. per square inch with coal, with the same sized blast pipes as were used previously for 80 lbs. with coke; and the fire-bars have also been placed closer together, the air spaces being reduced from 1 inch to ⅝ inch. Hence the writer concludes that the Welsh smokeless coal may be economically used in substitution for coke; and that where failures have taken place previously, they are to be attributed to the very great heating power of the coal; and that the difficulty with fire-bars has resulted not from clinker, but from the absence of a proper protection for the iron of the bars, so that, with heavy firing, the heat has struck downwards, and fused the bars themselves.

Nearly all the engines on the Taff Vale Railway are now burning Welsh steam coal entirely; they take with each train a load of 80 empty wagons, averaging 3¼ tons each, or 260 tons total, up an average rising gradient of 1 in 309, at from 13 to 14 miles per hour, without any inconvenience.

The composition of the Aberdare Four Feet Vein, the coal now in use in these engines, is—

Carbon	90.25	Nitrogen, &c.	2.13
Hydrogen	4.12	Ash	1.25
Oxygen	2.25		
Total			100.00

It is, therefore, practically coke, and requires only proper treatment for substitution in the place of coke. Another great advantage in the use of this coal over all others in locomotive engines, is its almost entire freedom from smoke, thus rendering any plan of smoke burning unnecessary—not even a steam jet being required when the engine is standing.

The advantage of slow speed is so distinctly shown in the results obtained, that the writer

considers this point is worthy of more attention than it usually receives on railways; for a slow speed not only economises the quantity of fuel consumed, by diminishing the resistance of the train, but also increases the evaporative duty obtained from it.

Mr. Tomlinson showed specimens of the various descriptions of coal and of the firebrick, before and after using it in the engine fire; and explained that the firebrick was merely broken into small pieces of about 3 inches cube, and thrown in roughly with a shovel in a single layer over the grate, so as to cover the fire-bars: it was found to last a long time, and in one special trial that he had made to test its durability, the fire was not dropped for six days—the engine running continuously 100 miles per day—and at the end of that time the firebrick still remained as an efficient protection for the grate bars. The clay used for the firebrick was the local fire clay from the Rhondda Valley, which answered well. The thickness of the fire was an important point: it might be 9 or 10 inches thick at the sides, where the absorbing surfaces of the fire box keep down the temperature; but should be as thin as possible in the centre, so that the bars could just be seen through it; for the bars would go down in the centre, in spite of all precautions, unless the fire was kept very thin, on account of the intense heat.

In the table of experiments, the injurious effect of increased speed was remarkably shown, not only in increased consumption of fuel, but also in diminished evaporative duty of the fuel, which was reduced about 10 per cent. by an increase of speed of 5½ miles per hour, or about 50 per cent.

In the trial that he had made of Newcastle coal, the coal used was some that had been tried in steamboats in comparison with Welsh coal, and he had made a trial of a small quantity in a locomotive; it was half small coal, and therefore would not serve for comparision with the large Welsh coal used in the experiments; but the trial showed that the bituminous Newcastle coal demanded very different circumstances for its economical consumption, requiring a much greater supply of air; it consequently received imperfect treatment in ordinary locomotive fire boxes, where no provision was made for an extra supply of air beyond that admitted through the grate; so that the evaporative duty obtained in the trial was only 5¼ lbs. of water per lb. of fuel.

The result of the trials in consumption per ton per mile were not always thoroughly reliable as a means of comparison, on account of the great fluctuation in the weight of trains down; some being as much as 700 or 800 tons down hill, which would materially affect the result; the fall was nearly uniform from one end of the line to the other, amounting to 409 feet in 24 miles, or an average gradient of 1 in 309. The trains wanted scarcely any power down hill, and required the break to regulate the speed, which was not allowed to exceed 12 miles per hour, on account of the number of heavy trains upon the line. The coke cost 12s. 6d. per ton, and the coal 6s. 8d. per ton, in the wagons upon the railway; so that the cost of fuel, when coal was used, was little more than half of that with coke, as the consumption was about the same in quantity to do the same work.

Mr. R. Laybourn said he had made some trials of burning Welsh coal in locomotives on the Monmouthshire Railway, about 18 months ago, with coal from Nixon's Deep Duffryn seam, the same seam of coal as the Aberdare Four Feet Vein, but found the bars came down in the same way as had been described; this was, however, obviated by using inferior coke for lighting the fire, which formed a portion of clinker over the bars, that served to protect them; by this means he succeeded in using the coal. The difference in price between coal and coke was considerably less in that instance—the Nixon's Deep Duffryn coal costing 11s. 6d. per ton, on account of having to be conveyed over two or three different railways; while the best coke cost 15s. per ton, and inferior coke 12s. to 13s. per ton.

He had been driven to investigate the subject of coal burning in locomotives about two years ago by the difficulty experienced in the supply of coke, and made a series of experiments, which led him to the adoption of a considerable proportion of coal mixed with the coke for the locomotives on the Monmouthshire Railway. In the half year ending December, 1855, and previously, coke alone had been used, at an average rate in that half year of 40 lbs. per mile for all the trains, passenger and goods, costing 3.12d. per mile for fuel. In the following half year to June, 1856, a quantity of coal was mixed with the coke; and in the next half year to December, 1856, this was increased to an average of 22.73 lbs. of coal per mile and 17.85 lbs. of coke, making a total consumption of 40.58 lbs. per mile, at a cost of 2.56d per mile of the trains for fuel. The proportion of coal was then further increased, and the results were:

In the half year ending	Coal. lbs.	Coke. lbs.	Total consumption lbs. per mile.	Cost of fuel per mile.
June, 1857.....	39.25	5.60	44.85	2.09d.
Dec., 1857.	39.71	5.20	44.91	2.13d.
June, 1858	34.15	7.21	41.36	2.10d.

The coal used was steam coal, of a semi-anthracite and semi-bituminous quality, obtained from the Monmouthshire valley on the eastern side of the Welsh coal district; it was not so anthracite as the Welsh steam coal, which was found at some distance westward from the district of the Monmouthshire Railway, in the Aberdare and Swansea valleys.

Mr. B. Fothergill had been engaged recently in an extensive series of experiments on the comparative value of coal and coke as fuel for locomotive engines; and the results of his observations led him to agree entirely with the statements in the paper, as to the efficiency of coal for locomotives in place of coke; and that the quantity of coal required was not greater to do the same work, if suitable provision was made for its proper combustion. His experiments had been made with the partially bituminous coal of Lancashire and Yorkshire; and he had also made one trial with the Welsh smokeless coal, in a locomotive engine, but it was impracticable to complete that trial, in consequence of the fire bars melting down upon the trip, so as to stop the engine after having run only a short distance. It was not from defect of the coal that this stoppage of the trial took place, but entirely from the melting of the fire bars; and it was evident, that without some provision for protecting the bars from melting, the Welsh smokeless coal could not be employed in locomotives.

The question of coal burning in locomotive engines was a highly important one, and called for the careful attention of railway companies, as to the saving to be effected in their working expenses by the substitution of coal for coke. In two trials he had made, the cost of fuel for taking the same train over the same distance of 96 miles was found to be—

With Coke, at 11s. 6d. per ton..... .....22s. 3d.
With Coal, at 5s. 3d. per ton.... .... 9s. 6d.

—showing a saving of 57 per cent. in the cost of fuel consumed when coal was used. He should be happy, on a future occasion, to bring before the institution the particulars and results of the trials; and was glad to say he had come unreservedly to the conclusion that there was no necessity for noxious volumes of smoke being discharged from locomotive engines with the use of coal, but they might always be made to burn their smoke satisfactorily. There was not only a great saving in the cost of fuel attending the use of coal, but a great convenience to the drivers in keeping up the steam better than with coke; and those accustomed to it would rather run a coal burning engine, if the smoke were consumed, than a coke engine.

There was another point of great importance to be noticed in reference to the subject—the relative durability of the boiler tubes and fire box, with coal and with coke: and after the practicability of using coal, with great economy in cost of fuel, had been established, this became a serious question, in deciding whether to go on making coal burning engines instead of coke engines. It had been feared, at first, that there would be a loss from more rapid destruction of the brass tubes and copper fire box with coal than with coke, and he had been recently engaged in an investigation of the subject on the London and South-Western Railway, where coal burning engines had been worked for a long time, for the purpose of ascertaining the real lifetime of the tubes under the two circumstances. The result was found to be, that in 26 coke burning engines, the average duration of a set of brass tubes was 94,518 miles, varying from 65 to 127,000 miles, according to their quality, and the description of coke used. But in several engines running with half coal and half coke, the tubes had run 154,955 miles, and were still in good working condition; and in one of these engines, the tubes, after 137,676 miles work, were not half worn out, and were reduced in thickness only from No. 13 to No. 16, wire gauge, or from .095 to .065 inch. From the results of this investigation he was satisfied that the ordinary wear of the tubes was caused mainly by the cutting and abrading action of the hard particles of coke drawn rapidly through the tubes, and was not entirely a chemical action, as had been at first supposed; and consequently, the comparative softness of the particles of coal greatly reduced this cause of wear. This was illustrated by the wear that ordinarily took place in the fire boxes of coke engines, in which the roof and upper portion were reduced only 1-32 inches in thickness, whilst under the fire door and at the lower part of the sides, where exposed to the continued wear of the hard pieces of coke, the thickness became reduced ¼ inch in the same time. He was satisfied that the durability both of tubes and fire boxes would prove much greater with coal alone; and that there was no ground to fear more chemical action from sulphur with coal than with coke.—*Newton's London of Arts.*

The New Haven Railroad--Injunction agst. the Payment of Dividends.

Below we give the decision of Judge Ingraham, of the Supreme Court, in reference to the dividend recently declared by this company:

SUPREME COURT—CHAMBERS—SEPT. 8.—Before Justice INGRAHAM.

John A. Underwood et al agt. The New York and New Haven Railroad Company.

This is an application growing out of the old Schuyler frauds on the New Haven Railroad Company. The facts of the case are disclosed in the opinion of the Court, rendered this morning, of which the following is the substance:

This is an action brought by the plaintiffs, who claim to be owners of some of the stock of the New Haven Railroad Company, to restrain the company from paying a dividend which was lately declared by the Directors, upon the ground that among the persons designated as stockholders there are several holding false stock, issued by Schuyler; and, also, to restrain the company from declaring other dividends until the true list of the stockholders is ascertained. The Judge here states the substance of Mr. Holbrook's affidavit, which has heretofore been made public.

He considers that it is necessary that a more thorough examination of the stock ledger, and of the transfers of the stock previous to 1853 should be made, before the true character of the stock held by those to whom the company propose to pay dividends can be ascertained.

If in no other way, the title to all the work from the original subscribers can be traced through those to whom such stock has been from time to time transferred, until it is found in the possession of the present holders. After reviewing the points raised by the counsel for the respective parties, comes to the conclusion that the order restraining the defendants should be to a certain extent granted. The dividend now declared belongs to the genuine stockholders. Whenever it is ascertained who they are, they will be entitled to receive their portions, and so far as it can be ascertained that any of the stockholders hold none of the stock that

is not genuine, there is no reason for prohibiting the payment to them of the dividend now declared by the company. In the affidavit submitted by the defendants, it was stated that more than one-half of the original subscribers of the stock continued to hold their stock up to the present time. There can be no doubt as to their right to the dividend now declared; and as there were no allegations that any fraudulent stock was issued prior to 1850, there seems to be no good reason for the restraining of the payment of the dividend upon any stock which is now held by persons who held it prior to 1850, and have not transferred their stock at any time since that period.

With these exceptions the injunction is continued as to all other stockholders, and the directors are prohibited from making any future dividend on the stock of the corporation until by the decision of some Court of competent jurisdiction, it shall be established who are the genuine stock holders in the company, or until the further order of the Court herein.

It will be seen that the Judge decided that the injunction should continue against stockholders acquiring their certificate *since* 1850, but that the dividend should be paid to those whose certificate date *anterior* to that time, there being no allegation of fraud prior thereto. A more thorough scrutiny of the stock ledger is to be made to ascertain the fraudulent from the *bona fide* stock.

La Crosse and Milwaukee Railroad.

A meeting was recently held in this city by the second mortgage bondholders of the Eastern Division of the La Crosse and Milwaukee Railroad, to express their disappointment in not receiving their interest, and to devise some way to arrive at it. Mr. D. E. Wheeler was appointed President, and Mr. Halliday, Secretary. The following resolutions were adopted:

Resolved, That the interests of the second mortgage bondholders require energetic measures for the protection of their interests, and that the committee proceed at their discretion to institute legal proceedings.

Resolved, That the committee now in charge of the interests of the second mortgage bondholders have the confidence of the bondholders, and this meeting tender to them their thanks for the ability and zeal they have manifested for the protection of their property up to the present time.

Resolved, That a contribution of $5 on each bond, to be paid as the committee may call for it, be made to defray the expenses of legal proceedings, and that the committee be requested to apply for a receiver, at their discretion, and for a sale of the road at an early day.

It is claimed that this portion of the road earned the last 15 months $343,000, *net*, a sum much larger than the accruing interest on the first and second mortgages. That the road has earned such a sum, is, we presume, no sufficient reason why the bondholders should get it.

With regard to the Western Division, matters are still worse, the net earnings being *nil*. According to a statement of Mr. Chamberlain, who seems to carry this concern in his pocket, the result of a year's operation have been as follows:

Rec'pts from pass'grs, fr't and mails..	$134,310 91
Expenditures for operating the road..	142,944 25
Expend's for other outlays, depots,&c.	69,785 42

Exhibiting a loss of $78,468 76, so far as the Western Division was concerned. In addition, Chamberlain's statements show that "the statement of expenses does not include any charge for use of rolling stock used in two daily passenger trains each way, and one working train, engaged in repairs of the road, belonging to the Eastern Division."

It will be found a very difficult thing to straighten out the affairs of this road, or to gain any credit for statements made in reference to it by interested parties. The road from the first has been the engine for the perpetration of frauds unequaled in extent by any ever committed in this country. It is not likely to escape from the effects for a long time to come, or be placed in the hands of parties who will labor honestly and capably for the benefit of the bondholders.

Journal of Banking Law.

LIABILITY OF BANKS—DEPOSITED CHECKS NEED NOT BE PRESENTED FOR PAYMENT THE DAY OF THEIR DEPOSIT.

The case of Hooker *vs.* Franklin, lately decided in the New York Superior Court, has an important bearing upon the every-day occurrence of deposits of checks in bank.

It is interesting to know, when we are contemplating the balance in our favor, which the deposit book may show, whether the balance is real or fictitious. To know when the bank really becomes liable to us, for the checks of other parties, that we may have deposited with them, and which appear to our credit in the bank-book.

This case establishes the doctrine, that although a bank receives the check of a third person, from the hands of a customer, on depoit, for collection, and credits such customer's account with the amount of its face, it does not undertake to use greater than ordinary diligence in its collection.

It does not undertake to present the check for payment the day of its deposit; nor is the bank guilty of negligence, if, in presenting it for payment, they conform to the regular and established course of business in such cases, though in such regular course the check would not be presented until the day after its deposit.

The facts of this case were as follows:

A check was drawn by the Chicago, St. Paul and Fond du Lac Railroad Company on the American Exchange Bank, in favor of J. W. Currier, and by him endorsed to the defendant, Joseph F. Franklin.

Franklin was a customer of the Continental Bank, and, therefore, endorsed the check, and deposited it with the Continental Bank on the day it was endorsed to him.

The Bank credited Franklin's account with the amount of the check, but did not present it to the American Exchange Bank until the next day, when it was sent through the Clearing House, according to the established usage of the Banks of the City of New York. The American Exchange Bank refused to pay the check, and immediately returned it to the Continental Bank. The Continental Bank then sued Franklin for the amount of the check.

It was urged upon the appeal that the plaintiffs should have presented the check for payment to the American Exchange Bank *on the day of its deposit with them*, there being in the American Exchange Bank, at that time, funds sufficient to pay the check, and that as the plaintiffs did not so present the check, the defendant was exonerated from all liability to the plaintiffs for the amount of the check.

Judge BOSWORTH, in delivering the opinion of the court said:—The defendant kept an account with the Continental Bank, and on depositing with that bank, on the 15th of April, 1857, the check in question, received credit for its amount.

The Continental Bank, in its proceedings to obtain payment of the check, conformed to the established usage of the banks in the City of New York, and the custom course of business in such cases.

The Continental Bank did not undertake, expressly or by implication to exercise or subject itself to the duty of exercising any greater diligence to obtain payment of the check.

It passed through the Clearing House to, and was presented at, the American Exchange Bank, on which it was drawn soon after that bank opened on the 16th.

That bank refused to pay it, and returned it to the Continental Bank, about 12 o'clock of that day. The defendant was immediately and personally notified of these facts; the defendant said, there must be some mistake in the matter, and he would see to it immediately. * * *

When a case presents no peculiar circumstances, *laches* cannot be instituted to the holder of a check, as between him and his immediate endorser, merely because he does not present it until the day after he received it, (Merchants' Bank *vs.* Spicer, 6 Wend., 433; Gough *vs.* Staats, 13 *id.* 549.)

Certainly no *laches* can be imputed to a depositary, receiving it for presentment and collection, who, on presenting it on the next day after its receipt, acts in conformity with the regular and established course of business in such cases.

A rule which required all banks in the City of New York to present, for payment, all the checks deposited by their customers, on the day of their deposit, would compel them to decline business of that character, and defeat the objects in many cases, for which deposits are made, and put an end to certain facilities, which result from obtaining credit for the amount of a check, for the day of its deposit, without providing for its payment until the following morning.

The transaction at the Clearing House did not operate as a payment of the check by the American Exchange Bank, nor make it the duty of that bank to credit the amount of it to the Continental Bank.

Giving to the transaction that effect, would be in direct conflict with the established course of business. * * * * * *

There was no evidence that the Continental Bank received the check as a purchaser and at its own risk, or upon an agreement not to look to the defendant, in the event of its being dishonored.

In our opinion, there is no error in the judgment appealed from, and it must be affirmed, with costs.

Mammoth Iron Vessel.

The British Government are having built a *wrought iron* vessel of immense size, strength and steam-power, especially adapted as a vessel of war, and for running down ships of the largest kind, not even excepting the *Great Eastern* herself. Sufficient progress has been made with the iron work to make it certain that she will be afloat and ready for sea by June next. Her dimensions will be—extreme length, 380 feet; breadth, 58 feet; depth, 41 feet 6 inches, and her tonnage, 6,177 tons. The weight of the empty hull will be 5,700 tons. The engines are to be 1,250 horse power, and their weight with boilers will be 950 tons. She will carry 950 tons of coal, and her armaments, masts, stores, &c., will amount to 1,100 tons more. Thus at sea, her total weight will be about 9,000 tons.

Sandusky, Dayton and Cincinnati Railroad.

The earnings of this road for the fiscal year ending June 30, 1859, were:—

From passengers	$173,387 28
" freight	371,147 34
" mails, express, etc.	33,423 96
	$577,958 58

And the expenses were:—

Locomotive power	$123,709 19	
Maintenance of way	78,411 78	
Train expenses	46,542 87	
Station expenses	56,529 92	
Office expenses	34,748 42	
General expenses	7,298 80	
Machine shop	4,836 03	
		352,076 07
Net earnings		$225,882 57
Loss and damage on freight		2,569 19
		$223,313 38
Less interest account	$114,694 61	
" taxes	11,419 63	
		126,114 24
Balance		$97,199 14

Compared with the previous year the gross earnings show an increase of $34,278 00
The expenses a decrease of 49,632 36

And the net earnings an increase of $83,910 36

In reference to the finances of the company, the report says:—

The process of extinguishment of over-due bonds, amounting, at the close of the fiscal year 1858, to $190,000, is progressing, under the arrangement of 1856, satisfactorily to all parties. Fifty-three thousand dollars of principal, and fifteen thousand four hundred and five of interest, have been paid during the past year.

Our floating debt is in a fair way of adjustment under the programme of February, 1858. Many of the company's securities, pledged as collateral, have been released and applied to the extinguishment of past due obligations. In some instances, where the margin in collaterals was large, obligations to pay a per centage in money have been given with the securities, on settlement. The securities thus used are mostly of the class of '75, and the obligations accompanying them have been promptly met. The remaining portion of our floating debt, including also that known as "the boat debt," it is hoped, will soon come in to the proposed arrangement, especially when it is seen, as will appear by the exhibits accompanying this report, that the company has offered the best terms within its power, and such as, in the end, promise to be entirely sufficient and satisfactory.

In estimating the future prospects of this road, some regard should be had to its past performances. Its net receipts, after allowing for changes in its operating condition, may be assumed as the most reliable guide in forming this estimate. From 1853 to 1859, both inclusive, the following statement shows the net of each year:

1853–'4	$334,441 20	1856–'7	$205,708 39
1854–'5	228,281 83	1857–'8	141,972 21
1855–'6	246,620 02	1858–'9	225,882 57

These results were derived from the following gross receipts for the same years, to wit:

1853–'4	$705,783 21	1856–'7	$686,190 96
1854–'5	588,777 79	1857–'8	543,680 58
1855–'6	575,723 18	1858–'9	577,958 58

The net of the year just closed is the largest of the last three years, and about equals (contrasting the gross and net of the two years) that of 1854–'5—while the expenditure has fallen short of sixty per cent. on $600,000, which was the estimate in last year's report.

The report of the Superintendent gives in detail the actual condition of the road, the present efficiency of its machinery, and the success with which it has been operated the past year. While the expenses have been reduced, it is believed that the road has never been in a condition to answer the purposes of its construction better than at the present time. The road-bed is in good order—the renewal of ties exceeds by three times the number replaced last year, and the company have gone to the extent of their ability in the renewal of iron.

The road has been run with exemplary promptitude and punctuality, at all seasons, and under all circumstances. No injury to passengers is reported, and the few accidents by which injury to the persons of employees or the property of the company has ensued, is creditable to the skill and faithfulness of its servants.

CONDENSED BALANCE SHEET.

			Dr.
Cost of road			$3,195,994 00
Stations			792,160 37
Rolling stock			605,900 00
Bonds of the company not sold			126,500 00
Stocks, bonds, and bills receivable			28,203 36
Lands			419 00
Materials on hand			44,455 47
Cash		$49,933 91	
Balances due from agents and connecting roads		6,314 35	
Due from P. O. Department		8,040 00	
			64,288 26
Balances due from individuals, mostly uncollectable			15,789 18
Balances due from sundry parties, mostly uncollectable or offset by claims			27,824 15
Coupons, mostly collectable from parties holding collaterals			6,905 31
Springfield and Columbus railroad			39,464 45
Boats			158,503 02
Profit and loss			391,951 41
			$5,508,357 88

	Cr.
Capital stock	$2,697,090 00
Bonds, over-due	137,000 00
" due in 1866	997,000 00
" due in 1875	1,000,000 00
Dividend, due in 1860—1862	224,000 00
Due in 1878, bonds and scrip	78,453 03
Dividends unclaimed	8,530 00
Bills payable	128,277 88
Balance of earnings account	120,203 93
Due employees, May and June	32,105 21
Due sundry parties for wood, ties, iron, etc.	11,960 28
Due sundry parties balances, loans, etc.	11,757 53
Taxes, proportion for 6 mos.	7,200 00
Interest on bonds, accrued to date	54,780 02
	$5,508,357 88

The officers are:—
O. Follet, *President.*
L. H. Latham, *Secretary and Treasurer.*
John H. Hudson, *Superintendent.*

Performances of Locomotives.

The New Orleans *Delta* gives the following account of the performances of two Philadelphia locomotives on the New Orleans, Jackson and Great Northern Railroad:

The locomotive "Black Prince," built by R. Norris & Son, Philadelphia, ran in the month of June 3,328 miles, burning 25 cords of wood, making 133-12 miles to a cord, carrying three passenger cars and one baggage car.

The locomotive "Mazeppa," built by M. W. Baldwin & Co., ran for the same month 2,730 miles, burning 27 cords of wood, making 101-08 miles to a cord, carrying the passenger and two baggage cars. The above wood includes firing up, switching and regular mileage. The length of the road is 206 miles; it has 85 stops each way.

We will also remark that, on one trip of the "Black Prince," (a trial trip,) the consumption of wood was 2½ cords, making 412 miles, including switching, stopping, and firing up at each end of the road, and with a train of two passenger cars and one baggage car—being 164-08 miles to a cord of wood.

Macon and Western Railroad.

The Balance-Sheet of this company for the fiscal year ending August 1, 1859, is as follows:

Construction Accounts, &c.		$1,500,000 00
Disbursements, July		111,338 74
Dividend No. 25		57,552 00
Interest on Bonds		8,391 54
Hinn Case		9,322 89
Treasurer's Balance	$27,270 81	
Bills Receivable	21,735 60	
Freight Agents	14,122 60	
Bank of the Republic	29,763 02	
Bank of Charleston	17,798 71	
Post Office Department	4,268 66	
Geo. Parsons & Co.	83 15	
Am. Atc. Screw St. Ship Co.	5,073 72	
Money Loaned	50,000 00	
		170,116 27
		$1,851,721 44
Capital Stock		$1,438,800 00
Bonds		52,500 00
Profit and Loss		107,917 05
Freight Earnings	$139,730 10	
Passenger Earnings	82,973 82	
Mail Earnings	6,791 85	
		229,495 77
Interest		486 88
Negro Hire		4,476 28
Central R. R. & Bk. Co.		930 79
Sale of Freight Cars		15,707 98
Through Tickets		1,406 69
		$1,851,721 44

Coal for Locomotives.

The following is the result of an experiment with Lehigh coal on the East Pennsylvania road with one of Norris's engines:

Office East Pennsylvania R. R. Co.,
Reading, Pa., Sept. 8, 1859.

Messrs. Richard Norris & Son:

Below please find statement of the performance of "Engine No. 1," built by you, on the East Pennsylvania Railroad, in July and August last. The coal cost $2 80 per ton, gross, in the tender.

Dimensions.	
Cylinders—Diameter, inches	14
Stroke, inches	24
Drivers—Diameter, feet	5
Grate—Area square feet	13½
Performance.	
Number of trips, (Round)	59
Total number miles run	4,514
Average number of cars	3½
Total pounds coal consumed	109,760
Pounds coal used per trip	1,860½
Pounds of coal per mile	24 3-10
Cost per trip	$2 33 100
Cost per mile	3 4-100 cts.

The above performance was on Passenger Trains. The fire was not drawn from 5 o'clock a. m., until after 6 p. m. daily. The engines ran 38½ miles, (single trip,) then lay over 1½ hours on an average, or 5 hours out of 12. During the 5 hours, in which the engine was standing still, coal was of course being consumed.

Yours truly,
James Moore,
Gen. Supt. East Pennsylvania R. R. Co.

Pittsburg and Erie Railroad.

Asa B. Wood, of Buffalo, has taken the contract for completing forty miles of this road, extending from Gerard, Penn., to Jamestown, to be finished by the 1st of November next. This will open a new avenue to the coal regions.

Junction and Breakwater Railroad.

The first division of this road, extending from its junction with the Delaware Railroad at Clark's Corner, to Milford, in Kent County, a distance of 8½ miles, was completed on the 25th of August. On the 7th inst. it was formally opened for business. The following is an extract from the address of the President of the company, delivered upon the occasion:

The stockholders have reason to congratulate themselves in having not only a well built and safe road, but, I believe, the cheapest in the country. The cost proper of the first division of the road, a distance of nine miles, is about $70,000, and an additional cost for depot building, engine house, and turn-table, of $3,500, making in all the sum of $73,500; the cost of which division, (including stock and bonds taken by the contractors,) amounts to about $8,000 per mile. The construction of the road, in respect to bridges, is both substantial and durable, while the iron and fastenings are of a quality, scarcely, if ever, surpassed. The track has been laid in the most durable manner, with ties of the best material.

The depot is one of the finest in the State, and when finished will reflect credit upon the judgment and taste of the committee of the Board under whose superintendence it has been placed. We are happy to state that the road commences operations free from any judgment or mortgage resting over it, all negotiations having been completed, and payments for the same duly anticipated and provided for.

Reading Railroad.

We understand that the vexed question of "dumpage" at the Reading Railroad Company's wharves, has at last been settled by the President of the company for the present yielding to the claim of shippers. It seems that some years ago the railroad company allowed to shippers at Richmond a "drawback" of fifteen cents on all coal that the company dumped on the wharves in the absence of vessels to take it away. The shippers alleged that it cost them fifteen cents per ton more to put it on board, after dumpage, than to empty the coal directly from the cars into the vessel. This abatement was subsequently withdrawn, and it has been a source of much dispute ever since. Latterly, the coal has been kept in the cars at Richmond, waiting for vessels, until they have accumulated there to the great inconvenience of trade, there being an inadequate supply of empty cars at the mines. To quiet complaints, and to allow a return of cars to the mines, the allowance for dumpage has been again conceded, and the coal, in the absence of vessels, is now as heretofore emptied upon the wharves. An increased tonnage over the road will no doubt be the result after this week, when the loaded cars shall have been relieved and returned to the mines.—*Philadelphia Ledger.*

Newark and Bloomfield Railroad.

At the annual meeting of the stockholders of this company, the following statement, showing the business of the year, was submitted:

	1859.	1858.
Gross earnings	$15,686 33	$12,045 82
Expenses	10,980 30	10,714 62
Net earnings	$4,706 03	$1,331 20

Number of passengers in 1859 91,188
" " " 1858 76,800
Increase 14,388

The directors have resolved to extend the road from the present terminus in the township of Bloomfield to the city of Paterson, and have directed the Engineer to make the necessary surveys. The work will be carried on immediately and the road, it is expected, will be constructed as soon as possible. The distance from the present terminus of the Bloomfield road, at West Bloomfield to Paterson, is only eight miles.

Steubenville and Indiana Railroad.

The Cincinnati *Commercial* states that the appointment of Judge Jewett as Receiver of this road was upon application of the Pennsylvania Railroad and Robert Garret & Sons, and other creditors, and adds:

We have not yet received a copy of the decree of the Court in this case, but learn that it is substantially the same as in that of the Central Ohio road, giving to the Receiver a, perhaps, greater discretionary power. It is provided that out of the gross earnings of the road, the current operating expenses are first to be paid—after these, *all arrearages to employees*, or for supplies or materials furnished since 1st January last are to be paid from said earnings. Next in order, these earnings are made subject to the payment of moneys borrowed for defraying operating expenses, interest and taxes, and individual endorsements. Provisions are also made for old claims against the road, interest on bonds, &c.

We learn that the announcement gives entire satisfaction to the friends of the road, and that the leading men in Steubenville and along the line of the road, together with all the Western Directors of the company, are sureties on Judge Jewett's bond.

Roofing the Victoria Bridge.

On Friday afternoon several members of the Press, at the invitation of the contractor for the roofing, proceeded to witness the process. Ascending the roof of the ponderous tubes—which, by the way, is constructed of wood upon an iron basement—they proceeded the narrow causeway that rests upon its summit, out beyond the sixth pier, to where the men are engaged in tinning the largest roof in the world. About ten plates are soldered together, and by a peculiar process are nailed by strips of tin to the roof, having previously been tapped by ridges to corresponding strips of soldered plates. These ridges, about one inch high, extend from the top to the bottom or edge of the roof, and are so constructed that they expand or contract with the tubes upon which they rest. Another peculiarity in the process is, that they are perfectly water-tight, not a lap or nail being seen over the whole extent of the roof. The contractor will use about 1,400 boxes ozier bed plates, each box containing 112 plates. The locomotive, a small one, employed in conveying the iron plates to the workmen in the tube, passed through before the writer had left the roof. There was scarcely any vibration perceptible; nothing but the rumbling sound occasioned by the passage of a train through a tunnel. Workmen are now engaged in laying the heavy, solid, permanent track, in the interior of the bridge, and taking up the old one.—*Montreal Herald, Aug. 29.*

The Hoosac Tunnel.

The Boston *Journal* gives an account of the progress making with this great work:

The tunnel is excavated through mica slate—a rock which is very favorable for the work. The strata of the rock is nearly vertical, the inclination being sufficient to render arching entirely unnecessary. The work has been pushed forward on the east side a distance of nearly 1,600 feet from the mouth of the tunnel. The tunnel is fourteen feet wide, and eighteen feet high. The whole distance to be excavated is 24,500 feet. The tunnel is 1,700 feet beneath the summit of the mountain. Besides the work which has been done on the eastern side of the mountain, the tunnel has been excavated for a distance of 500 feet on the west side. The sides and top of the tunnel are rough and craggy, but strong and enduring. They require no arching or propping. There is every reason to suppose that a similar formation extends through the mountain.

The maximum rate of progress since the work commenced has been eighteen feet per week on each side of the mountain. The average rate, however, has been but ten or twelve, the work having been frequently interrupted by strikes among the workmen. With hand labor, the work could not probably be accomplished in less than ten years. But it is the intention of the contractors to apply machinery to the tunnel—not the complicated rock-cutting machines which have heretofore been experimented with, but drills driven by compressed air. Two drilling machines, the principle of which is new, are now constructing, and will soon be applied to the work. With this machinery, the contractors expect to progress at least four times more rapidly than heretofore.

Blue Ridge Railroad Tunnels.

A few days since there was a very large and enthusiastic celebration at the Stump House Mountain Tunnel, on the Blue Ridge Railroad, in South Carolina. The Governor of the State and other distinguished persons were present. From a graphic sketch in the Charleston *Mercury* we gather a few facts. The Stump House Mountain is a high elevation, rising to a level of 1,760 feet above tide-water, situated in Pickens district, at a distance by the traveled route of 305 miles from Charleston. Twelve miles to the westward runs the Chatuga river, the boundary between the States of South Carolina and Georgia. The scenery from the summit of the Stump House is sublimely grand, embracing the North Carolina summits, the high peaks of the Alleghanian chain, Mount Pisgah, Cold, Ball, Table Mountain and the Saddle Peak. The tunnel is 5,864 feet in length, 4,163 of which have already been driven, leaving only 1,701 feet to be now worked. The tunnel is cut to a grade of sixty feet to the mile rising westward, and will require the excavation of nearly 70,000 cubic yards of stone. The Middle Tunnel, at another point on the road, is completed, and the Saddle Tunnel is one-third through. It is thought that in twelve months all the tunnels in South Carolina could be completed, and also the road-bed be ready for the track.

Detroit and Milwaukee Railroad.

This company have just completed and put in commission two staunch steamers, the Detroit and Milwaukee, to ply between Grand Haven and Milwaukee, in connection with their road, which connects with the Great Western at Detroit, and runs thence to Grand Haven, at the mouth of Grand river, directly opposite Milwaukee. These two boats were built and equipped in Buffalo, at a cost of about $300,000; and, while their speed is good, (13 to 14 miles per hour,) they have been built in the most substantial manner, with special reference to service in rough weather.

The company expect with these boats to keep the ferry across Lake Michigan, (about 60 miles,) open all winter, and that they will be able to connect with their trains the year round. This route shortens the distance between Detroit and Milwaukee, and points west of the latter city, something more than 100 miles.

Newark and Belleville Railroad.

At a meeting of the directors of this company recently held at Jersey City, the following preamble and resolution was unanimously adopted:

Whereas, Surveys and profiles of various routes for the Belleville road, on the west side of the Passaic river, from Newark to Belleville, were laid before the Board by the Engineers of the Company, be it

Resolved, That the said engineers, with a committee of the Board, proceed without delay to review and examine the various routes on the west side of the Passaic river, to ascertain the cost of the right of way and the practicability of each route, and report the result to the Board.

Virginia and Kentucky Railroad.

An election was held in Lee County, Va., on the 25th August, for the purpose of ratifying the order of the Court for a County subscription of $50,000 to the Virginia and Kentucky Railroad, which resulted almost unanimously in favor of the subscription.

Cincinnati Stock Sales.

BY KIRK & OHEBVER.

For the week ending September 13, 1859.

BONDS.	Per cent.	
Little Miami, 1st Mort.	6s—85	and int.
Covington and Lexington, 2d Mortgage	7s—55	
Cinc., Ham. and Dayton, 2d Mortgage	7s—82¾	
Indianap. & Cincinnati, do. do.	7s—82¼	
STOCKS.		
Cincinnati, Hamilton & Dayton		68
Columbus and Xenia		83
Indianapolis & Cincinnati		50
Little Miami		85

Railroad Earnings.

The earnings of the Cleveland and Mahoning railroad for August were :—

Passengers	$4,340 78
Freight	11,073 91
Coal	9,553 99
Mail	262 50
Total earnings for August	$25,231 27
Operating expenses	8,894 92
Net earnings	$16,336 35

In the expenses are included about $1,400 for extraordinary repairs to a bridge.

The following are the August earnings of the Cincinnati, Hamilton and Dayton Railroad, compared with the corresponding month of previous year :

1859	$46,082 22
1858	38,175 03
Increase, 1859	$7,907 19

The business of the Illinois Central Railroad for August, 1859, was as follows :

Land Department.

Acres Construction Lands sold	1,511.97	for	$21,409 86
Acres Interest Fund L'ds sold	80.00	"	2,725 72
Acres Free Lands sold	80.00	"	1,449 60
Total sales during the month	1,671.97	for	$25,625 18
To which add Town Lot sales			1,106 20
Total of all			$26,731 38
Acres sold since Jan'y 1, 1859	20,188.61	for	$299,799 27
Acres sold prev'sly,	1,229,835.33	"	15,637,148 95
Total	1,250,023.94	for	$15,936,948 22

Construction Bonds canceled in Aug., 1859	$17,000 00
Construction Bonds canceled previously	1,148,000 00
	$1,165,000 00
Free Land Bonds canceled in Aug., 1859 $3,000	
Free Land Bonds canceled previously 149,000	
	152,000 00
Total Bonds canceled up to August, 31, 1859	$1,317,000 00
Cash receipts in August, 1859	$29,847 64
Do. since Jan'y 1, 1859	363,085 02
Total cash and bonds received to August 31, 1859	$3,037,982 55

Traffic Department.

Receipts from passengers		$63,467 89
Do.	freight	96,789 90
Do.	mails	6,358 23
Do.	rent of road	5,215 00
Do.	other sources	5,198 93
Total receipts in August, 1859		$177,030 05
Do. do. 1858		202,953 01
Do. since Jan'y 1, 1859		$1,185,932 53
Do. do. 1858		1,262,905 52

Original land grant, 2,595,000 acres; railway, 706 miles of main track, and 87 miles of sidings; 118 engines; 2,401 cars; funded debt, $18,683,000; share capital, $60 paid on 175,000 shares—$10,500,000.

	1856.	1857.	1858.
Traffic	$2,434,878.59	2,293,964.47	1,976,578.52
Work'g expenses	1,444,546.19	1,791,231.14	1,419,954.80
Balance	$990,332.40	$502,733.43	$556,623.72

The receipts of the New York and Harlem railroad company for Aug., 1859, were $100,118 04
Do. do. 1858 93,236 57
Net increase $6,881 47

The earnings of the Toledo, Wabash and Western Railroad for August, were as follows :—

Passengers	$24,523 76
Freight	44,693 34
Mail and express	3,366 66
Total	$72,582 76

The earnings of the Michigan Southern and Northern Indiana railroad, during the month of August, were as follows :—

	1859.	1858.
Passengers	$57,290 99	$74,725 36
Freight	85,717 36	100,302 69
Mails	4,583 41	4,635 14
Express and miscell's	5,287 90	23,046 09
Total	$149,879 66	$202,709 28

The receipts of the Grand Trunk Railway of Canada for the week ending August 27, were $46,381 09
Week ending Aug. 28, 1858, 47,163 37
Increase $782 28
Total traffic from July 1st $338,733 69
Same period last year 323,562 60
Increase $15,171 09

The receipts of the Grand Trunk Railway of Canada for the week ending Sept. 3, were $45,242 78
Week ending Sept. 4, 1858 43,421 69
Increase $1,821 09
Total traffic from July 1st $383,976 47
Same period last year 366,984 29
Increase $16,992 18

The earnings of the Chicago, Burlington and Quincy railroad for August were as follows :

	Chicago & Burlington.	Galesburg & Quincy.
Freight	$78,087 04	$9,179 81
Passengers	32,654 18	9,463 95
Mails and miscellaneous	1,938 38	872 83
Total	$112,679 60	$19,516 09

Total earnings, 310 miles $132,195 69
Total earnings in August, 1858 145,443 46
Decrease in 1859 $13,247 77

The earnings of the North Pennsylvania Railroad for August, 1859, were $34,005
August, 1858 29,150
Increase $4,845
Earnings in 9 months, ending August 31, 1859 $248,070
For same time last year 210,759
Increase $37,310

The earnings of the Worcester and Nashua railroad for August, 1859, were $22,359 10
August, 1858 18,624 33
Increase $3,734 77

The following is a statement of the earnings of the New York Central Railroad, for the month of August, 1859, compared with its earnings for the corresponding month of the previous year :

August, 1859	$602,151 07
August, 1858	538,048 16
Increase	$64,102 91

The earnings of the Watertown and Rome railroad for August were as follows :

	1858.	1859.
From passengers	$13,221 64	$14,268 17
From freight	14,535 69	14,415 84
From other sources	1,150 92	1,127 24
Total	$28,908 25	$29,810 75
Increase in 1859		$902 50

The earnings of the Pacific Railroad of Missouri for August, 1859, were $48,947 14
August, 1858 50,602 25
Decrease $1,655 11

The earnings of the South West Branch in August were $1,158.55.

The earnings of the Memphis and Ohio railroad for August were $18,198 09
August, 1858 5,823 98
Increase $12,374 11

The earnings of the Erie railroad, for August, 1859, were $359,114 59
Earnings, August, 1858 383,281 96
Decrease $24,167 37

The earnings of the Norwich and Worcester railroad, for August was very favorable. The figures are :—

	1858.	1859.
Passengers	$13,797 69	$16,021 27
Freight	17,773 93	20,185 48
Totals	$31,371 42	$36,206 75
Decrease		$4,635 33

Harrisburg and Lancaster Railroad.

The annual meeting of the stockholders of the Harrisburg, Portsmouth, Mount Joy and Lancaster railroad company was held at Philadelphia on the 2d inst. From the report of the President we learn that the—

Receipts from passengers, not from or to the Pennsylvania railroad were	$89,096
From passengers to and from Pennsylvania railroad	57,123
From freight from all sources	250,543
From Adam's Express, emigrant passengers, etc.	11,144
From rents and mail	15,653
Total receipts for the year	$423,561

The expenditures were for the year, for—

Motive power and transportation	$169,544
Repairs of road	56,912
Salaries of officers, conductors, etc.	9,540
Tax on dividends, freight and property	29,573
Rent, insurance, etc.	3,138
Interest on bonds, etc.	36,880
Two per cent. dividends	108,710
Total expenditures	$402,299

—showing a surplus of $9,251 on hand. The number of passengers carried over the whole road was 146,219. The report states that the sterling bonds of the company due in London January, 1858, have all been paid and cancelled. Of the dollar bonds, maturing at the same time in this city, there still remain outstanding but $1,000. The bonds of the company loaned to the Pittsburg, Fort Wayne and Chicago Railroad Company

have all been returned. The road and bridges are reported in excellent condition, several bridges having been rebuilt during the past year.

The officers for the ensuing years are: Michael V. Baker, Esq., re-elected President, and George Taber, Esq., Secretary. *Directors*—Michael V. Baker, William Ford, Algernon S. Roberts, Dr. John Holmes, James Magee, Robert V. Massey, Wm. W. Longstreth, Jas. Mehaffey, John H. Towne, J. B. Lippincott, Jas. Young, Edward P. Gay and Thomas Sparks.

American Railroad Journal.

Saturday, September 17, 1859.

How the Management of our Railroads can be Improved.

The great thing wanting to an improvement in the management of railroads is a knowledge of the manner in which they are conducted. Only in a very few instances is this communicated with the requisite fulness of detail. As it is impossible to tell how most of our railroads are managed, so it is impossible to form a correct idea of their value. The Reports of railroad managers give us what are claimed to be *net* results of their operations, but keep from the public the process by which they are reached. We are told that the earnings are so much, the current expenses so and so. The balance which belongs to the capital account is simple deduction from the two statements. But a railroad and its equipment is a perishable affair. The iron, ties, machinery, bridges, and many of its structures have to be renewed on an average every ten years. In each year, therefore, the depreciation of these equal one-tenth part of their value. If these are not fully maintained, or a sum be not set apart each year for this object equal to the annual wear and decay, and embraced among the current expenses, then these are understated by an equal amount. Take the matter of *rails*. They may last 8 or 10 years without any extensive renewals, when they must be entirely replaced. Now it is well known that the large dividends paid years back by many of our companies were made up in part of what should have gone to *current* expenses, or to a fund for renewals. When they could be no longer postpored, dividends had to be greatly reduced or omitted altogether. Now, a statement, to show as nearly as possible the actual condition of a road, and whether the same has been fully maintained, should give the *items* of expenditures. Only a small number of companies give the quantity of rails that have been used during the year, or their cost. In the absence of such a statement, no idea can be formed of the condition of the track. It is quite as important to state the quantity as the value of the rails, as the difference between the cost of new, and re-rolled rails is equal, often, to one hundred and fifty per cent. The number of ties on a road, as well as the number renewed each year, should be given. Statements equally full and explicit should be made in reference to machinery and bridges, and in fact to every perishable structure, that the stockholders may see the relation between the sums yearly expended upon them, and their cost, and their annual depreciation.

A great many, if not most of the managers of our railroads act upon the idea that a great many things should not be communicated to the stockholders, as a knowledge of them might throw an odium upon their management, or shake the confidence of the public in the value of the securities held by it.—In other words, the *owners* of our railroads are, often, allowed to know only so much about their property as those entrusted with its management see fit to communicate. To these, not only the property of the stockholders, but all voice in the manner of conducting it, is entrusted. The latter, in fact, have only a mere residuary interest dependent, in its value, upon the capacity or faithfulness of their agent, over whom they really exert little influence or control.

Such a state of things would be speedily changed, could every important act of the managers of a railroad be laid before the public. It would at once become a subject of criticism, or comparison with similar acts by other companies. A judgment, and probably a correct one, would be formed by the stockholders, which would react upon, and become the rule of conduct for the managers, who would in all cases become constantly amenable to public opinion, from which by the present system pursued they are now almost entirely shielded. We cannot expect any very great improvement till the neglects and abuses commented upon shall be thoroughly corrected.

Sunbury and Erie Railroad.

This road has been completed from Erie to Union Mills, and formally opened for business. Regular trains are now running between the two places. The company is also engaged in stocking the completed portion of their road, and have ordered the construction of twenty-three more burthen and platform cars. The work on the portion of the road between Union Mills and Lock Haven is rapidly approaching completion, and will most undoubtedly be in working order by the first of January next.

Pacific Railroad of Missouri.

The proposition to subscribe $200,000 to the stock of this road, was recently submitted to the voters of Jackson County; the result was a majority of one thousand in favor of the subscription.

Florida Railroad.

We learn that this company has purchased two steamboats for the route between Cedar Keys and New Orleans, on the proposed great through mail route of the seaboard, and that two iron steamboats have been contracted to be built for the portion of the route between Charleston and Fernandina.

Detroit and Milwaukee Railroad.

We learn that since the new boats have been put on, the freight business over this road has more than doubled. Freights for Wisconsin and all points in the Northwest now generally take this route.

New York and Erie Railroad.

For the purpose of assisting, as far as possible, to an intelligent discussion of the affairs of the Erie railroad, we present in the following page a full abstract of its operations for seven years, embracing the entire period since its completion.

The result, we confess, is not very flattering, if the past is to be a copy for the future. The most unfavorable feature presented by the abstract is the constantly increasing cost of maintaining some of the more important departments, such as the road proper, and machinery. The cost of maintaining the former increased over *three hundred* per cent. from 1852 to 1859. That of machinery, *two hundred* per cent. per mile run. This immense increase proves one of two things—either that the yearly statements made by the company have failed to give any adequate idea of its affairs, or that no intelligent opinion can be formed by the managing parties of the cost of keeping up the road. Taking the result, there is a degree of uncertainty in this matter, so great as to destroy all confidence in this or any other road; for no business can be a paying one, the expenses connected with which, (its volume being uniform) vary in different years *three hundred* per cent.

This wide difference we refer to an incompetent management rather than to any inherent defect in the thing itself. It is, certainly, comparatively easy to tell when a road is *completed*. This being determined, it is easy to estimate, pretty nearly, the annual wear and tear to which it is to be subjected. Take the matter of repairs of track, including iron. We suppose that *twenty cents* per mile run is a fair estimate of the cost of maintaining a first class road, including the depreciation of rails. The charge for repairs of track, in 1852, was 12.40 cents per mile run; or 7.60 less than the actual depreciation. In 1853, it was 16.63, or 3.37 cents less. In 1859, it equalled 37.83 cents per mile, or 17.83 cents greater than the actual annual depreciation. The necessary inference is that the early reports of the company failed to give the total yearly current expenses, while those for a later period, would seem to prove that their great excess over previous years, and over the assumed standard, (of 20 cents per mile run,) embraced repairs and improvements neglected in former years. But this last inference is not a necessary one, as we know too little of the present condition of the road, or the manner in which it has been conducted, for two or three years past, to say whether anything more than the yearly depreciation has been met. If this be all, the figures given show a very lavish expenditure for the services performed.

But whatever may be the true cause of the vast difference in the current expenses for different years, one fact is apparent through the whole, that we are yet all afloat as to the actual cost of the road, whenever it *may* be completed, and of the necessary ratio of expenses to earnings. As before remarked, the very first elements to an intelligent estimate of the cost and value of the road are wanting. In any move for the re-organization of the company, the first step to be taken is to ascertain and define them.

The decline in the business of the road, though great, is not so great as upon many other important lines. That the receipts have held up so well, under all the circumstances, prove the great strength of the route. Its local trade is very valuable; while connecting by an uninterrupted line, the harbor of New York with the great Lakes, it cannot fail, under almost any administration, of having a very large through business. The goods traffic has held up remarkably well. The past decline in the passenger receipts from 1853 and 1854, is a bad feature, and has arisen very largely from the mismanagement of this department. From a variety of causes, the passenger traffic has been actually driven from this to other roads.

New York and Erie Railroad.

Statement showing the operations of the New York and Erie Railroad for the seven years ending September 30, 1858.

1. TABLE *showing the cost of construction and equipments, earnings, etc.*

Years.	Cost of r'd and equipment.	Length of road. Main.	Branch.	2d track & sid'gs.	Equiv. in single t.	Liabilities of Company. Paid-up capital	Funded debt.	Floating debt.	Miles operated incl. r'd leas'd, rent'd, etc.	Carried one mile. Total miles run by loc. with trains.	Number of passengers.	Tons of freight.	Gross earnings. Pass'ger traffic.	Freight traffic.	Tot., incl. mails, etc.	Rec'ts from all sources.	Expendit's on all accounts.	Net rec'pts over expendit's.	Am'nt applied to interest.	Am'nt applied to div'd's.
'52	$27,551,205	446	19	83	548	$7,766,991	$18,003,869	$1,823,053	465	2,389,271	81,179,554	96,697,695	$1,382,637	$1,883,198	$3,537,766	$3,569,815	$1,841,168	$1,728,647	$1,114,939	$416,384
'53	31,222,834	446	19	217	682	10,000,091	20,173,869	2,685,026	495	2,834,269	98,432,361	101,626,522	1,601,209	2,537,214	4,318,962	4,484,985	2,518,782	1,966,203	1,298,291	252,660
'54	33,489,431	446	19	262	727	10,023,959	22,601,000	2,525,669	495	2,963,484	96,663,709	130,508 034	1,743,379	3,369,590	5,359,958	5,351,037	2,806,027	2,545,010	1,667,255	700,605
'55	33,742,317	446	19	265	730	10,023,959	24,851,000	1,051,540	495	3,141,339	84,069,398	150,673 997	1,698,670	3,653,001	5,488,993	5,429,489	2,680,328	2,749,161	1,793,698	nil.
'56	33,938,254	446	19	281	746	10,000,000	24,891,000	991,066	495	3,193,133	101,108,220	183,458,046	1,656,674	4,545,722	6,348,990	6,205,491	3,763,389	2,442,102	1,758,948	nil.
'57	34,033,680	446	19	281	746	11,000,000	24,891,000	1,982,482	495	3,052,671	85,362,657	165,100,950	1,495,361	4,097,610	5,742,606	5,827,975	4,189,229	1,638,746	1,849,927	nil.
'58	34,058,632	446	19	283	748	11,000,000	26,438,016	732,257	495	3,001,869	64,931,456	165,895,686	1,682,258	3,843,311	5,151,616	5,151,616	4,065,041	1,086,575	1,442,201	nil.
	277,986,353	3,122	133	1,672	4,927	69,815,000	161,849,754	11,291,093	3,435	20,575,536	611,747,355	994,260,780	10,760,188	23,929,646	35,948,891	38,020,408	21,863,964	14,156,444	10,925,259	1,569,599
Av.	32,569,479	446	19	239	704	9,973,571	23,121,393	1,618,013	491	2,939,362	87,392,479	142,037,254	1,537,169	3,418,521	5,135,556	5,145,772	3,123,423	2,022,349	1,560,751	224,228

2. TABLE *showing the cost of repairing and operating the road, rolling stock, etc.*

Years.	Roadway, track, buildings, etc. Road-bed and track.	Iron used in repairs.	Buildings, fences, etc.	Taxes on real estate.	Total cost of maintain'g r'd.	Rolling stock, tools, etc. Engines & tenders.	Cars and trucks.	Tools and machin'y in shops.	Total cost of repairs includ. incidentals.	Operating engines and trains. Conductors & brakemen.	Engin'rs & firemen.	Coal and wood.	Oil & waste. Used for engines.	Used for cars.	Total cost of operating.	Miscellaneous. Office and stationery.	Clerks and laborers.	General superintendence.	Losses and damages.	Total incl. all others.	Grand total cost of repairs and operating.
1852.	$188,391	$55,080	$9,563	$43,233	$296,267	$203,312	$132,159	$24,389	$378,546	$178,410	$131,222	$262,363	$54,449	$33,547	$659,991	$28,813	$197,676	$20,120	$60,262	$326,953	$1,661,767
1853.	391,571	6,826	31,700	41,372	471,469	233,471	159,997	24,479	434,894	204,662	180,199	373,818	61,148	33,463	853,290	38,712	289,424	30,994	88,068	496,346	2,255,999
1854.	391,230	121,624	26,521	63,411	602,786	313,927	202,113	23,262	560,582	208,041	223,407	409,599	54,059	33,486	928,682	46,347	298,550	58,411	49,288	545,557	2,637,607
1855.	392,982	103,189	34,230	54,583	584,984	218,127	132,581	15,572	386,895	221,720	214,477	440,925	44,693	48,228	970,043	52,350	337,348	58,202	25,915	748,406	2,690,328
1856.	495,190	49,193	36,862	59,344	641,589	349,692	225,842	28,307	631,179	219,331	212,502	472,494	44,846	36,693	985,866	54,544	424,696	67,114	29,722	901,763	3,160,397
1857.	665,752	164,721	46,054	62,076	938,603	422,760	392,271	36,607	882,086	215,048	214,002	512,007	57,432	42,569	1,041,058	56,337	449,040	67,360	62,168	1,045,140	3,906,887
1858.	889,219	126,408	57,681	62,256	1,135,564	358,634	471,122	30,189	890,274	180,433	190,826	471,040	56,091	27,692	925,582	41,366	354,444	69,051	71,420	643,647	3,595,067
	3,414,335	627,041	243,611	386,275	4,671,262	2,099,923	1,716,035	182,805	4,164,456	1,427,645	1,366,225	2,942,246	372,718	255,678	6,364,512	318,469	2,351,178	371,252	386,843	4,707,822	19,908,052
Aver.	487,762	89,577	34,802	55,182	667,323	299,989	245,148	26,115	594,922	203,949	195,175	420,321	53,245	36,525	909,216	45,495	335,897	53,036	55,263	672,546	2,844,007

3. TABLE *showing the cost (in cents) per mile run by locomotives with trains, reduced from Table No. 2.*

1852.....	7.88	2.31	0.40	1.81	12.40	8.51	5.53	1.02	15.84	7.49	5.48	10.97	2.28	1.40	27.64	1.20	8.27	0.83	2.52	13.69	69.56
1853.....	13.81	0.24	1.12	1.46	16.63	8.23	5.64	0.86	15.34	7.22	6.35	13.19	2.15	1.18	30.10	1.37	10.21	1.09	3.11	17.52	79.59
1854.....	13.21	4.10	0.89	2.14	20.34	10.59	6.82	0.79	18.92	7.02	7.54	13.82	1.83	1.13	31.34	1.56	10.07	1.97	1.66	18.41	89.01
1855.....	12.51	3.28	1.09	1.74	18.62	6.94	4.22	0.49	12.31	7.06	6.82	14.03	1.43	1.54	30.88	1.67	10.74	1.85	0.82	23.82	85.63
1856.....	15.51	1.54	1.18	1.86	20.09	10.95	7.07	0.89	19.77	6.86	6.65	14.78	1.44	1.14	30.87	1.71	13.30	2.10	0.93	28.24	98.97
1857.....	21.81	5.39	1.51	2.03	30.74	13.85	12.85	1.19	28.89	7.04	7.02	16.77	1.88	1.40	34.11	1.84	14.71	2.20	2.04	34.24	127.98
1858.....	29.63	4.41	1.92	2.07	37.83	11.95	15.69	1.00	29.67	6.01	6.34	15.70	1.87	0.92	30.84	1.38	11.80	2.20	2.38	21.44	119.78
	114.36	21.27	8.11	13.11	156.65	71.02	57.82	6.24	140.74	48.70	46.20	99.26	12.88	8.71	215.78	10.73	79.10	12.34	13.46	157.36	670.52
Average..	16.33	3.03	1.16	1.87	22.38	10.14	8.26	0.89	20.10	6.96	6.60	14.18	1.84	1.24	30.82	1.53	11.30	1.76	1.92	22.48	95.79

4. TABLE *showing the receipts, etc., per mile run, and the ratio of specific expenses.*

Years.	Tot. rec'pts per mile run.	Tot. exp're per mile run.	Total net re-c'pts p. mile run.	Ratio of expendit's to tot. rec'pts.	Ratio to total expenditure. Road bed, track, etc.	Rolling stock, etc.	Cost of operat'g.	Miscel. exp's.
1852.....	$1.49	$0.77	$0.72	51.67	17.83	22.79	39.75	19.63
1853.....	1.58	0.89	0.69	56.33	20.89	19.27	37.82	22.02
1854.....	1.81	0.95	0.86	52.48	22.84	21.20	35.21	20.68
1855.....	1.72	0.85	0.87	49.42	21.74	14.38	36.06	27.81
1856.....	1.94	1.18	0.76	60.82	20.29	19.99	31.19	28.53
1857.....	1.91	1.37	0.54	71.72	24.03	22.57	26.65	26.75
1858.....	1.71	1.35	0.36	78.95	31.58	24.79	25.74	17.89
	12.16	7.36	4.80	421.39	159.20	144.99	232.42	163.31
Ann. Aver.	1.74	1.05	0.69	60.19	22.74	20.71	33.20	23.33

5. TABLE *showing the cost, capital, receipts, expenditures, etc., per mile of road.*

Years.	Cost of road per mile.	Liabilities per mile. Capital stock.	Funded debt.	Floating debt.	Total re-c'pts p. mile.	Total expendit's p. mile.	Net rec'pts per mile.
1852.....	$59,249	$16,703	$38,718	$2 845	$7,677	$3,959	$3,717
1853.....	67,146	21,505	43,385	5,774	9,060	5,089	3,971
1854.....	71,912	21,559	48,604	5,431	10,810	5,669	5,191
1855.....	72,564	21,557	53,443	2,261	10,968	5,414	5,554
1856.....	72,985	21 504	53,529	2,131	12,536	7,603	4,933
1857.....	73,191	23,654	53,529	4,263	11,774	8,463	3,311
1858.....	73,223	23,654	56,856	1,575	10,407	8,212	2,195
	490,270	150,134	348,064	24.280	73,232	44,409	28,822
Ann. Average..	70,038	21,449	49,723	3,468	10,461	6.344	4,117

Gutta Percha Cement Roofing.

We invite attention to the advertisement in another column, of Messrs. JOHNS & CROSLEY's "*Gutta Percha Cement Roofing.*" This article has been thoroughly tested in this city, Brooklyn, and elsewhere, by builders, architects and others, who pronounce it the cheapest and most durable roofing in use. The materials of which it is composed, combine every requisite for a practically imperishable roof. It is fire and water proof; and from its great elasticity, is not injuriously affected by extremes of heat and cold. It is adapted to all kinds of roof, whether steep or flat, and is readily applied to old shingle roofs without removing the shingles. The cost is only about one-half that of Tin.

The Gutta Percha Cement, from its great durability, is fast superseding paint for coating and preserving new, and repairing old tin and metal roofs. It adheres firmly when applied, forming a body equal to three coats of ordinary paint. It is not liable to crack in cold, or run in warm weather. Roofs repaired with this Cement are prevented from further corrosion and leaking. Orders supplied at short notice for Gutta Percha Roofing Cloth, and Gutta Percha Cement by the barrel, with full directions for application. Address Messrs. JOHNS & CROSLEY, 510 Broadway, New York, or 349 Fulton st., Brooklyn.

Holly's Elliptical Rotary Pump.

In our advertising department will be found a cut of this approved engine as adapted for railroad use. It has been in successful application as a power in mines, factories, shipping, etc., for some considerable period, and has earned for itself an excellent character for simplicity, efficiency, and durability. In its new application it is also authentically endorsed by several eminent railroad engineers and mechanics. Whatever may hitherto have been the prejudice against rotary pumps, the experience of this adaptation has signally overcome. It is also evident that it has many qualities not possessed by other forms; and the small amount of power necessary to drive it as compared with other pumps to raise a given quantity of water is not the least prominent feature in its favor. The agent in this city for the sale of these pumps is C. W. COPELAND, Esq., 122 Broadway.

English vs. American Rails.

To the Editor of the AM. RAILROAD JOURNAL:

Your correspondent "R. O.," in your paper of the 3d inst., affirms the decided superiority of English to American rails, and proposes several tests to prove the fact.

The comparative quality of English and American rails can be seen by any person in your city, in a few hours, by taking a trip to Hackettstown, N. J., on the Morris and Essex Railroad, and inspecting the rails of the extension of that road from Dover, and then examining the rails on the Sussex Railroad, from Waterloo to Newton; the former are English, 70 lbs. to the yard, the latter made by the Trenton Iron Co., 50 lbs. to the yard; the former have been down two years the longest, but the latter have carried twice the amount of tonnage; and a fair inspection will show that while a large number of the English rails are splintered at the ends, not twelve rails can be found in the same condition on the twelve miles laid with the American iron.

Sussex Co., N. J., Sept. 12, J. R.

House Furnishing Hardware.

The attention of persons in want of house furnishing goods, is invited to the advertisement of C. B. GORDON, Esq., 258 Pearl street, in this city. Mr. GORDON has for sale Water Coolers, Baths, Plain Japanned and Stamped Tin Ware. He is also dealer in Tinmans' Tools, Copper Bottoms, Brass Kettles, etc.

Also manufacturer of the "OLD EMPIRE COFFEE POT," patented October 19, 1858, and which has received the unqualified approval of numbers who have given it a trial. It is constructed in sizes from 1 to 16 quarts, at prices varying from $1 25 to $7 00. It is simple in its construction, easily managed, and accomplishes the object for which it was intended. Full printed directions accompany each package.

Sault St. Marie Canal.

The following is the monthly statement for August of the commerce of the Canal, furnished by the Superintendent to the Detroit Board of Trade.

	Aug. 1859.	Aug. 1858.
No. of Steamers passed....	17	12
" Propellers "	26	13
" Sail vessels "	90	45
" Tugs "	60	3
Aggregate tonnage....	64,752	36,829
Tolls received	$3,091,98	$1,730.94
No. of passengers.	2,517	

The total value of all articles which passed the Canal, during the month of August, was $1,249,-964 48.

Alexandria, Loudoun and Hampshire R. R.

About twenty miles of rail have been laid on this road, and the work of track-laying is steadily progressing with the expectation of reaching Leesburg the coming winter.

Personal.

CHARLES MINOT, Esq., was appointed General Superintendent of the New York and Erie railroad on the 7th inst.

Mr. R. C. NEIL, of Campville, has been appointed Superintendent of Live Stock on the New York and Erie railroad—and is to have the entire charge of that branch of the businass.

Interest and Dividends.

The Philadelphia and Norristown Railroad Company have declared a dividend of 5 per cent., payable on the 1st of October.

We understand that the money to pay the interest on the coupon bonds of the city of Norfolk, Va., due in New York on the 1st of October next, has been transmitted to this city.

Important Decision in Virginia.

The Court of Appeals have unanimously affirmed the judgment of the Circuit Court in this County, in the case of "Sanger *vs.* The Central Railroad Company." At the November term, 1856, of the Circuit Court of Augusta, Jacob Sanger recovered a verdict for $6,000 damages for injuries received by the plaintiff whilst a passenger on the cars of the defendant. The cars were thrown off the track by a large stone left lying near the rail, by the carelessness of some hands in the employment of the contractors who were ballasting the road, and the plaintiff had his leg broken. At the trial, the company contended that they were not responsible for the acts of the hands in the employment of their contractors. The Judge (Thompson) held that they were, and on this point the case went up. This is the first case in Virginia settling the extent of the liability of railroad companies as passenger carriers, and it hold them up to the most rigorous responsibility. The judgment amounts to over $7,000 at this time, exclusive of counsel fees paid by the company.—*Staunton Spectator.*

FAIRBANKS'

STANDARD SCALES,

Adapted to every branch of business where a correct and durable Scale is required.

SCALES FOR RAILROADS,
SCALES FOR COAL DEALERS & MINERS,
SCALES FOR HAY AND CATTLE DEALERS,
WAREHOUSE AND TRANSPORTATION SCALES,
PORTABLE AND DORMANT SCALES FOR STORES,
Scales for Grain and Flour Dealers,
Counter Scales, every variety,
BANKERS' AND JEWELLERS' BALANCES,
SCALES FOR FAMILY AND FARM USE,
WEIGH-MASTERS' BEAMS,
POST OFFICE SCALES, ETC., ETC.,

All of which are WARRANTED in every particular. Call and examine, or send for an illustrated circular.

FAIRBANKS & CO.,
189 Broadway, New York.

THE Cheapest and most DURABLE ROOFING IN USE. Sent to any part of the country with *directions for application.*

GUTTA PERCHA CEMENT ROOFING.

SPECIMENS and *references* can be seen, and any desired information obtained on application, by *letter* or in *person*, at our OFFICE, 510 BROADWAY, N. Y. (Opposite the St. Nicholas Hotel). JOHNS & CROSLEY.

G. B. GORDON,
IMPORTER AND JOBBER OF HOUSE-FURNISHING
HARDWARE,
MANUFACTURER OF THE
"Old Empire Coffee Pot,"
WATER COOLERS, BATHS,
PLAIN JAPANNED AND STAMPED TINWARE.
DEALER IN
Tinman's Tools, Copper Bottoms Brass Kettles, etc,
258 PEARL STREET, Adjoining U. S. Hotel, } NEW YORK.

RAILROAD IRON.

THE undersigned, agents for the manufacturers, are prepared to make CONTRACTS FOR RAILS delivered free on board at ports in England, or exship at ports in the United States

M. K. JESUP & COMP'Y,
44 Exchange Place.
New York, 1st June, 1859.

FULTON FOUNDRY AND MACHINE WORKS,
P. F. GEISSE,
WELLSVILLE, OHIO.

STEAM ENGINES of every variety built to order. STEAM BOATS and STEAM FERRY BOATS contracted for in whole.

PUTNAM'S PATENT **Turn-Tables** (a very superior and simple table) of all sizes built to order at very reasonable rates.

Car Wheels of a quality superior to any ever yet made. I am now manufacturing from the best material, and annealed by a process patented by me in February, 1859, which renders them almost equal to wrought iron. Car Wheels, Steam Engines and all kinds of machinery furnished at as low, if not lower rates than can be found elsewhere.

Rights to manufacture Car Wheels under P. F. GEISSE'S annealing process may be obtained from the Patentee at Wellsville, O., or from T. Culbertson, No. 8 Fourth Avenue, N. Y.

Testimonials from the Superintendents and Master Mechanics of the Cleveland and Pittsburg, Little Miami, and Steubenville and Indiana Railroads, as to the superior quality and durability of these Wheels will be furnished on application.

THE LAWRENCEVILLE MANUF'G
CEMENT COMPANY,
OFFICE 96 WALL ST.,
NEW YORK.

THIS Company manufacture **ROSENDALE HYDRAULIC CEMENT** of a superior and uniform quality, and are constantly receiving it **fresh** from their Works at Rosendale. Particular attention paid to grinding **fine**, and packing in superior casks. We warrant it to set under water, and attain a hardness excelled by no Cement manufactured. It has met the approval of Government, and we are at present supplying the fortification now in course of erection, together with Water Works and Public Buildings. For sale upon favorable terms by addressing.

WM. N. BEACH, President.
CHAS. E. LAWRENCE, Sec'y.

WINDOW, PICTURE AND CAR
GLASS.
F. HOPKINS & BROTHER,
IMPORTERS,
193 Pearl St., NEW YORK.

A VERY SUPERIOR WELL FINISHED IRON CITY RAILROAD CAR, complete and fit for immediate use, will be sold very low to close a concern.
Enquire at 63 PINE ST.,
37*2t UP-STAIRS.

DIVIDEND NOTICE.

THE Board of Directors of the Virginia Central Railroad Company have declared a dividend of 2½ per cent. for the last six months on each share of the stock of the Company payable 15th September, 1859.

The books of the transfer will be closed from the 5th to the 15th of September, and the dividend will be paid to those in whose name the stock stands on the 5th of September.

J. GARRETT,
2t37 Treasurer.

A GENTLEMAN who has upwards of 20 years experience in conducting an extensive machine manufacturing business (as principal) writes a good hand and has a thorough knowledge of accounts and general business routine, wishes an engagement with some established concern where his services would command a fair compensation.

Satisfactory evidence of business capacity and integrity will be furnished.

Address S. box 983 Baltimore Post Office. 3m32

METALS for RAILROAD COMPANIES.
LUCIUS HART,
IMPORTER AND DEALER IN METALS,
4 and 6 Burling Slip, NEW YORK.

BLOCK TIN.	SPELTER.	BABBITT METAL.
ANTIMONY.	PIG LEAD.	INGOT COPPER.

RAILROAD IRON.

THE undersigned, Agents for leading Manufacturers in STAFFORDSHIRE and WALES, are prepared to contract for delivery on board ship at LIVERPOOL, or WELSH port.

C. CONGREVE & SON,
13 Cliff st., N. Y.

MORRIS & JONES & CO.,
IRON MERCHANTS,
MARKET AND SIXTEENTH STREETS,
PHILADELPHIA.
IRON AND STEEL
IN ALL THEIR VARIETIES.

BOILER PLATE, CAR AXLES,
BOILER RIVETS, RAILROAD IRON,
CUT NAILS and SPIKES, PIG IRON, etc.

Having the selling agency of a number of the Rolling Mills, Furnaces and Forges in this State, **orders for any description of IRON** can be executed.
August 16, 1854.

RAILROAD IRON
AND COMMON BARS.

THE undersigned, sole Agents to Messrs. GUEST & Co., the proprietors of the Dowlais Iron Works, near Cardiff, South Wales, are duly authorized to contract for the sale of their G. L. Railroad Iron, and Common Bars, on most advantageous terms.

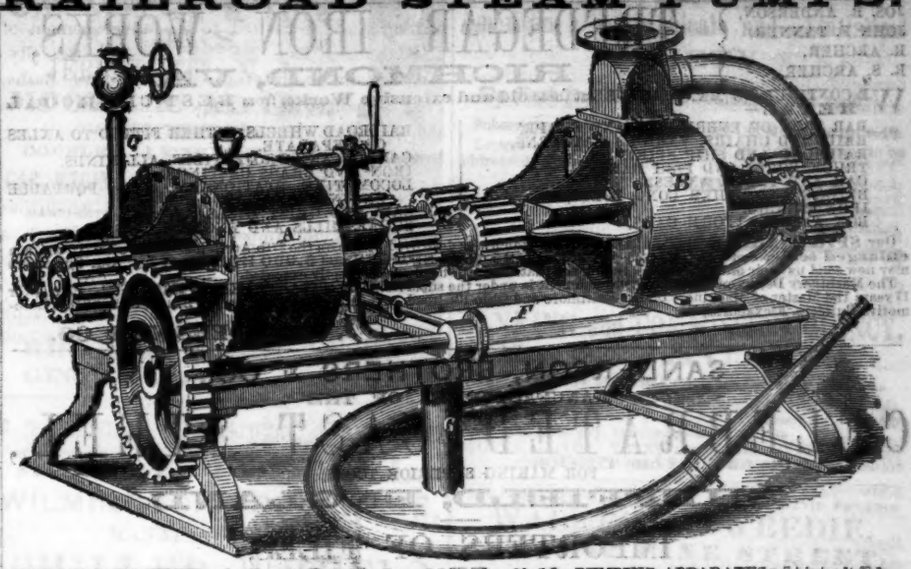
R. & J. MAKIN, 70 Broad st.

RAILROAD IRON.

THE subscribers, Agents for the Manufacturers, are prepared to contract for the delivery of **RAILROAD IRON** at any port in the United States or Canada, or at a shipping port in Wales.

WAINWRIGHT & TAPPAN,
BOSTON, June, 1851. **29 Central Wharf.**

RAILROAD STEAM PUMPS.



HOLLY'S PATENT, the most simple, durable and reliable PUMPING APPARATUS, yet introduced.
C. W. COPELAND, 122 Broadway, New York.

RAILROAD IRON.

THE subscriber is prepared to enter into **CONTRACTS FOR RAILS** delivered at an English port or at a port in the United States.

JAMES TINKER,
54 Exchange Place,
NEW YORK.

Erie Rails, 57 to 58 lbs. per yard, on hand in NEW YORK and NEW ORLEANS.

LACKAWANNA
IRON AND COAL COMPANY,
SCRANTON, LUZERNE CO., PA.

BY the completion of the DELAWARE, LACKAWANNA AND WESTERN RAILROAD, this Company are enabled to obtain the MAGNETIC ORES from the most celebrated mines in New Jersey, which used in combination with their native ores, produce **a quality of iron not surpassed.**

These Works have been greatly enlarged the past year, and are, therefore, prepared to execute orders promptly for **RAILROAD IRON** of any pattern and weight, **Car Axles, Spikes,** and **Merchant Iron.** They have on hand patterns for **T Rails,** of the following weights per lineal yard, viz —25, 30, 36, 40, 45, 50, 60, 62, and 75 lbs.

Samples of RAILS and MERCHANT IRON may be seen at the office of the Company, **46 Exchange Place,** N. York.

Address **J. H. SCRANTON,** President,
Scranton, Pa.
or **DAVID S. DODGE,** Treasurer,
46 Exchange Place,
NEW YORK.

THE
RAILROAD IRON MILL COMPANY,
CLEVELAND, OHIO,
MANUFACTURERS EXCLUSIVELY OF
RAILROAD IRON.

THIS is a new ROLLING MILL, having been working only eighteen months, and confined to work for roads of this line between Buffalo and Chicago in re-rolling old Rails The capacity is Forty Tons per day. It is well situated to receiving old Rails, either by Railroad or Lake.

Orders are now solicited
From Roads in other sections of the country; and work will be made with New Iron in the heads, if desired.

Apply to
ALBERT G. SMITH,
President of the Incorporation
February, 1858.

RAILROAD IRON.

CONTRACTS for **RAILS,** at a fixed price or on commission, delivered at an English port, or at a port in the United States, will be made by the undersigned.

THEODORE DEHON,
10 Wall st., near Broadway, N. Y.
500 tons T Rails on hand, 44 to 67 lbs. per lineal yard.

FAY, WOOD & CO.,
214 Pearl st., NEW YORK,
MANUFACTURERS OF
WHITE LEAD, ZINC,
COPAL VARNISHES AND
JAPANS.
Also, PUTTY, PAINTS and COLORS.

RAILROAD IRON.
The Crescent Manufacturing Company
WHEELING, VA.,

ARE now prepared to execute, at short notice, orders for Rails of any required pattern and weight, and to re-roll old rails, on the most liberal terms Address

N WILKINSON, Sec'y,
8tf WHEELING, VA

RAILROAD IRON.

THE undersigned, Agents for the Manufacturers, are prepared to contract to deliver, free on board at shipping ports in England, or at ports of discharge in the United States,
RAILS OF SUPERIOR QUALITY,
and of weight or pattern as may be required.

VOSE, LIVINGSTON & CO.,
9 South William st.
NEW YORK, Aug. 1, 1858.

RAILROAD IRON.
THE RENSSELAER IRON COMPANY,
TROY, N. Y.,

OFFER Rails of their own manufacture deliverable as may be desired by purchasers.

OLD RAILS
received in exchange for new, or for re-manufacturing.
JOHN A. GRISWOLD, Agent,
TROY, N. Y.

New York Agency:
BUSSING, CROCKER & DODGE,
33 Cliff St.

CAST STEEL,
Of First Quality and Warranted.
BAR, TOOL, DRILL, AND DIE STEEL.
LOCOMOTIVE, CAR AND CARRIAGE CAST STEEL.
CAR SPRING STEEL,
Far superior to the ordinary kind.
FROG PLATES, POINTS.
Saw, File, Cutlery, Rake, Hoe, Axe and Plough Steel. Gun Metal. Wire and Machinery Steel.
ORDERS FILLED PROMPTLY AND AT LOW PRICES.

SALTUS & CO.,
45 Cliff st., New York.

JOS. R. ANDERSON,
JOHN F. TANNER,
R. ARCHER,
R. S. ARCHER.

TREDEGAR IRON WORKS,

RICHMOND, VA.

WE CONTINUE TO MANUFACTURE at these old and extensive Works, from BEST CHARCOAL METAL—

BAR IRON OF EVERY SIZE AND SHAPE,
RAILROAD CHAIRS, VARIOUS PATTERNS,
RAILROAD AND SHIP SPIKES,
TRUCK BOLTS AND FISH BARS,
CAR AND TRUCK AXLES,
BRIDGE AND OTHER LONG BOLTS,
IRON TRUCKS,
BOX AND PLATFORM CARS,
RAILROAD WHEELS, EITHER FITTED TO AXLES OR SEPARATE,
CANNON AND PROJECTILES, ALL KINDS,
IRON AND BRASS CASTINGS,
LOCOMOTIVE, STATIONARY AND PORTABLE ENGINES,
SAW AND GRIST MILLS,
SUGAR MILLS AND ENGINES.

Our **SPIKE AND BOLT FACTORY,** which was destroyed by fire on the 27th April, has been **rebuilt on an enlarged scale,** and we are now prepared to make **25 tons SPIKES** and **5,000 BOLTS** per day. Our Customers may now send us their orders with full confidence that they will be always promptly executed.

The Machinery Department of our Establishment is under the supervision of **THATCHER PERKINS, Esq.,** for 13 years the Master of Machinery on the Baltimore and Ohio Railroad, and late of the concern of SMITH & PERKINS, Locomotive Builders, Alexandria, Va.

J. R. ANDERSON & CO.

SANDERSON, BROTHERS & CO.,

MANUFACTURERS OF THE

CELEBRATED CAST STEEL,

FOR MAKING SUPERIOR TOOLS,

SHEFFIELD, ENGLAND.

IMPORTERS OF FILES,

Armitage's Genuine Mousehole Anvils, etc.

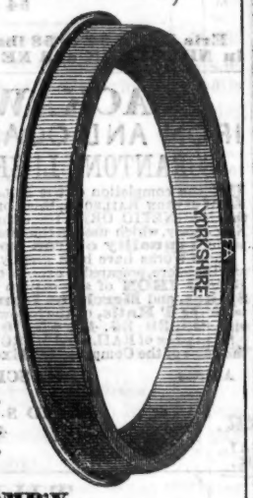
16 CLIFF STREET, NEW YORK.

42 BATTERYMARCH ST., **Boston.**
44 BANK PLACE, **New Orleans.**
516 COMMERCE ST., **Philadelphia.**
TYLER, DAVIDSON & CO., **Cincinnati, O.**
HISS & COLE, **Baltimore, Md.**

THE FARNLEY IRON CO.,

Near LEEDS, Yorkshire,

MANUFACTURERS OF
LOCOMOTIVE TIRES,
TIRE BARS,
BOILER PLATES, ETC.



The undersigned are prepared to execute orders for

TIRES,

Manufactured at these celebrated Works,

OF ALL SIZES.

STOCK CONSTANTLY ON HAND.

The quality of the **FARNLEY IRON** is precisely the same as that of **LOW MOOR** and **BOWLING,** being from the same bed of mineral.

For sale, **at manufacturer's prices,** by

M. K. JESUP & COMP'Y,
44 Exchange Place, New York,
SOLE AGENTS for the UNITED STATES and CANADAS.

BEERS' 'CAST IRON ENDLESS RAIL,' FOR CITY RAILROAD.

Patented August 24, 1858, and May 10, 1859.

THIS Road is constructed exclusively of **Iron,** without tie, string-piece or spike (in paved streets), will wear as long as three successive structures of the Philadelphia class of road; thereby saving not less than **$1,000,** yearly, per mile on repairs and relays, now fully tested. Cost from **$6,000** to **$8,000** per mile.

ALSO

BEERS' "ELASTIC IRON RAILWAY," FOR LOCOMOTIVE USE.

This structure is strictly independent of the action of frost, indestructible in the character of material, and positively free from undulations; saving 50 per cent. on dead weight of train, 60 per cent. on motive power, and 80 per cent on repairs; thereby reducing the current expenses of maintaining and operating from $1,500 to $2,000 per mile yearly. Cost of track (exclusive of grading) from $9,000 to $11,000; out of which $3,000 will be saved on the first cost of equipment, and character of grading. The undersigned is prepared to construct, **either Road,** in any part of the United States, South America, or Europe; or will furnish the materials only, for any part of the world. For particulars address

S. A. BEERS, C. E., **Brooklyn, N. Y.**

A specimen of these Roads may be examined at 55 Liberty st., NEW YORK.

Railroad Iron.

THE undersigned have American and Foreign Railroad Iron for sale, deliverable in New York and other markets.

CASWELL & PERKINS,
Brokers, 69 Wall st.

New York, July 9, 1859.

RAILROAD IRON.

500 TONS American Rails, Erie pattern, 56 lbs. per yard, for sale at Chicago, also about
250 Tons English Rails same size and weight.

M. K. JESUP & COMP'Y,
44 Exchange Place.

New York, June, 1859.

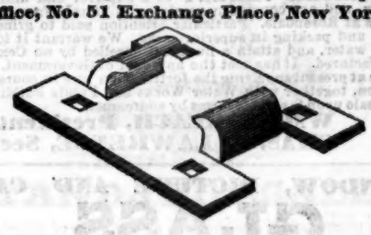
NEW YORK
RAILROAD CHAIR WORKS.

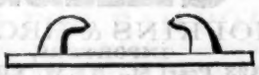
J. B. GREEN & CO., Proprietors.

SUCCESSORS TO THE

New York Wrought Iron Railroad Chair Company.

Office, No. 51 Exchange Place, New York.





HAVING recently purchased, at Receiver's Sale, all the Patent Rights owned by the late "NEW YORK WROUGHT IRON RAILROAD CHAIR COMPANY," and also the entire machinery for manufacturing their improved **Wrought Iron Railroad Chair,** we are now fully prepared to receive and fill all orders from responsible parties, to any extent, with promptness and dispatch.

The thickness of the lips of our chair increases through the bend, where the greatest strength is required, and diminishes towards the edge; so that a less weight of metal may be used, and a strength acquired equal, if not superior, to that of a heavier Chair of uniform thickness.

We invite the attention of parties wishing the **best Wrought Iron Chair** now in market, to our works for a supply; believing they combine qualities superior to any others now manufactured.

One great advantage possessed by our Chairs over those that are rolled, is that the lips are turned AGAINST OR ACROSS the fibre of the iron; while the lips of a rolled Chair are turned WITH the fibre—making them liable to break or split as a board.

The Chairs weigh from seven and a-half to fifteen pounds, according to the thickness of the Iron and size of the Chair. To enable us to give you a perfect fit, it will be necessary always to send a section of the Rail properly notched. We cannot undertake to make Chairs without a proper pattern, as it is impossible to make a perfect fitting Chair from a drawing.

Chairs of our manufacture, are used by the following roads, and by over **seventy** others, in every part of the country:—

North Carolina Railroad Company,
New Jersey Central Railroad Company,
Panama Railroad Company,
Buffalo and State Line Railroad Company,
New York and New Haven Railroad Company,
New Orleans, Jackson and Great Northern R. R. Co., etc., etc.

Messrs. **M. K. JESUP & CO., 44 Exchange Place, NEW YORK,** are the only parties authorized to act as our Agents.

☞ Mr. JACOB ROWE, formerly President of the old Company, has no connection, whatever, with our present organization, nor does he sell chairs of our make.

IRON BOILER FLUES.

LAP-WELDED BOILER FLUES,

1½ to 7 inches outside diameter, cut to definite length, 2 to 20 feet as required.

Wrought Iron Welded Tubes,

From ¼ to 5 inches bore, with Screw and Socket Connections. T's L's Stops Valves Flanges, etc., etc.

MANUFACTURED AND FOR SALE BY

MORRIS, TASKER & CO.,

PASCAL IRON WORKS.

Established 1821.

WAREHOUSE—209 SOUTH THIRD STREET,

PHILADELPHIA.

STEPHEN MORRIS, THOS. T. TASKER, JR. — CHAS. WHEELER, JR., STEPHEN P. M. TASKER.

RAILROAD IRON.

WOOD, MORRELL & CO.,

HAVING leased the extensive Works of the **CAMBRIA IRON COMPANY,** situated at JOHNSTOWN, Cambria Co., Penna., and purchased all their real estate, are now prepared to execute, at short notice, orders for **RAILS** of any required pattern or weight, on the most liberal terms.

PHILADELPHIA OFFICE, NORTH PENNA. R. R. BUILDING, **No. 407 Walnut st.**

RAILROAD IRON.

THE undersigned, having been appointed Agents for Messrs. BOLCKOW & VAUGHAN, proprietors of the

ESTON, MIDDLESBRO', and WITTON PARK

IRON WORKS, YORKSHIRE, ENG.,

are prepared to contract for the sale of **RAILROAD IRON** of a superior quality and on the most advantageous terms.

MEAD & BELL,
17 William st., N. Y.

THE IMPERIAL LUBRICATING OIL,

MANUFACTURED BY

J. C. HULL & SONS,

(Formerly W. HULL & SON,)

Nos. 108, 110, 112, 114, 116 & 118 Cliff St.,

NEW YORK,

For Railroads, Machine Shops, Steamships, Mills, etc.

THIS OIL having been before the public for a **long time,** and having been **extensively used** in different parts of the country, and on each occasion meeting with **unqualified approval,** renders the manufacturers confident when making the following claims:—

1st. **Its first cost is much less** than that of any Oil in use, of known merit or acknowledged worth.

2nd. It will **not in any way gum** or **clog up** any journal or bearing, **all the gum in the Oil being entirely decomposed.**

3rd. It will keep all journals and bearings **cool, clean** and **bright** as new, thus not only **saving wear and tear,** but **saving also** no inconsiderable amount of **motive power.**

4th. It is fully as **durable** as any Oil in the market, and consumers are invited to make their experiments on such journals as are inclined to heat up.

5th. It is **sweet** and **clean,** and entirely **free from all odor or unpleasant smell.**

6th. It will remain limpid at as low a temperature as sperm.

CERTIFICATES from a large number of **Railroad** and **Steamboat officers,** also, prominent **Manufacturers** and **Machine Builders,** can be seen by application as above.

TAW & BEERS,

DEALERS IN

Sperm, Whale and Elephant Oils,

Adamantine Car and other Candles,

AND MANUFACTURERS OF

TAW'S LUBRICATING

GREASE

FOR RAILROAD CARS AND HEAVY MACHINERY.

THIS celebrated **GREASE** has been in use upwards of **Ten years;** and is in the opinion of **FORTY RAILROAD COMPANIES,** whom we regularly supply,

The Cheapest and Best Lubricator in use.

Parties ordering, will please state the kind of box, or description of machinery.

TAW & BEERS,
18 SOUTH WATER ST.,
Philadelphia.

OIL! OIL!

PEASE'S

IMPROVED ENGINE and SIGNAL OIL,

FOR

RAILROADS, STEAMERS, PROPELLERS,

AND FOR EVERY CLASS OF

MACHINERY AND BURNING.

PRACTICAL TESTS, by Engineers and Machinists of Thousands of Gallons, **prove** this Oil to be **superior** for **Burning,** and **TWENTY-FIVE** per cent. more **durable** than Sperm Oil, for Lubricating, and the **only** Oil that is in all cases **reliable,** that will keep bearings **cool,** and

WILL NOT GUM.

In no case has it failed to meet the approval of the consumer.

The *Scientific American* and *Manufacturer's Journal,* after testing this Oil, pronounce it **superior** to any other for Lubricating.—For sale **ONLY** by the Inventor

F. S. PEASE, 61 Main st., BUFFALO.

Reliable orders filled for any part of the United States or Europe.

UNION CAR WHEEL & TIRE WORKS,

JERSEY CITY, N. J.

MOORE & ADAMS,

MANUFACTURERS OF

DOUBLE and SINGLE PLATE

CAR, ENGINE AND TRUCK WHEELS,

MANUFACTURERS AND PROPRIETORS OF

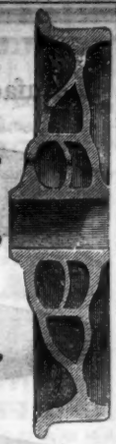
MOORE'S PATENT

TRIPLE PLATE CAR WHEEL.

CHILLED LOCOMOTIVE TIRES,

Made from the best Charcoal Cold Blast Iron.

HIRAM W. MOORE,
GEORGE ADAMS.



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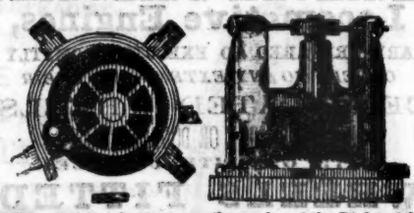

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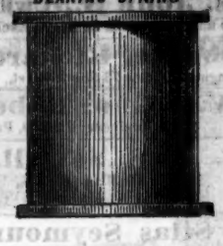

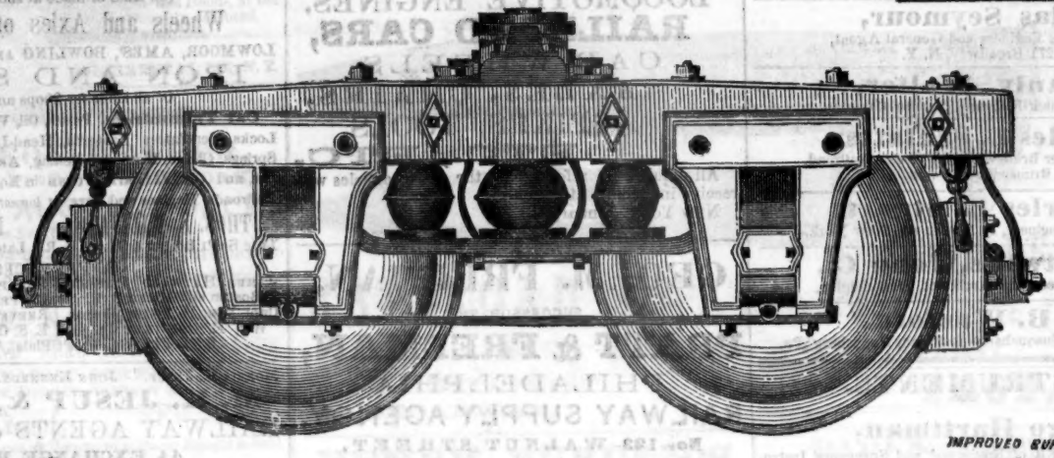

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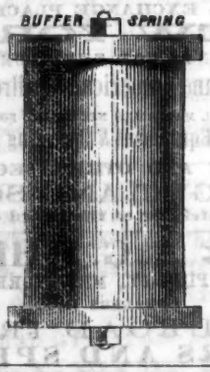

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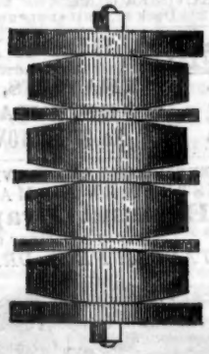

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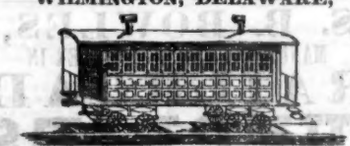

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